

# SHOPPER'S GUIDE: BOOST BUSINESS WITH A FAX

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BEST HOME-  
BUSINESS CONTEST

October 1990

# HomeOffice

C O M P U T I N G

BUILDING BETTER BUSINESSES WITH TECHNOLOGY

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Out of Learning  
Software**

**The Best  
Work-at-Home  
Opportunities**

**Hold On to  
The Business  
Deductions  
You Deserve**

**7 Secrets of  
Better Self-  
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**30 Hardware  
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**TECHNOLOGY**  
**STORE**<sup>SM</sup>



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## FEATURES

## COVER STORY

## Fired into Success

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For many people, the shock of losing a job provides the impetus to start a business; picking up the pieces after a devastating experience can prepare you for success on your own. Here are stories of several people who have prospered in the aftermath of corporate cutbacks and layoffs. *Plus:* A self-employment checklist.

## BUSINESS OPPORTUNITIES

## The Best Opportunities for Telecommuters

Page 49

Working from home for a large company can give you the best of both worlds—work flexibility and the stability of a steady paycheck. This update on companies that offer and promote telecommuting also includes a listing of positions that can often be easily parlayed into work-at-home situations.

## SHOPPER'S GUIDE

## The Fax: More Features for Less Money!

Page 52

The speed and simplicity of facsimile technology promise a world of benefits for your business. But with the myriad fax features, fax boards, fax switches, and fax services, how do you figure out what's best for you? Here are some fax solutions for your business tasks. *Plus:* A roundup of six fax machines.

## SPECIAL CONTEST

## The First Annual Best Home-Based Business Contest

Page 56

Does your business have the right stuff? The search is on for the best home-based businesses. Enter this one-of-a-kind contest and you could be one of the winners who will cash in on more than \$20,000 in prizes.

## SOFTWARE

## How to Learn Any Program Your Way

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Books, disks, video- and audiocassettes, classes, and personal instructors are all good alternatives to too-often-unsatisfactory software documentation. Find out the best ways to learn to use software effectively in this guide to software-training resources.

## PRODUCTS

## Product Previews

Page 14

HOME-OFFICE COMPUTING's editors take first looks at new hardware, software, and office products. *This month:* A hot new ink-jet printer from Hewlett-Packard, affordable PostScript capabilities with Panasonic's KX-P4455, a new fax board from Fremont, handy Mac utilities, a powerful data-compression scheme, and a full-fledged accounting package for just \$50.

## Hardware Reviews

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*Computers:* Hyundai Super-386C, Northgate 320 MicroStation. *Laser Printer:* Star Micronics LaserPrinter 8II. *Fax Machine:* Sanyo Sanfax 520.

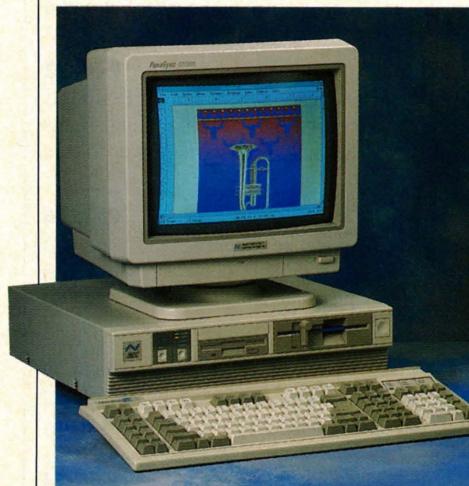
## Best-Selling Software

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## Software Reviews

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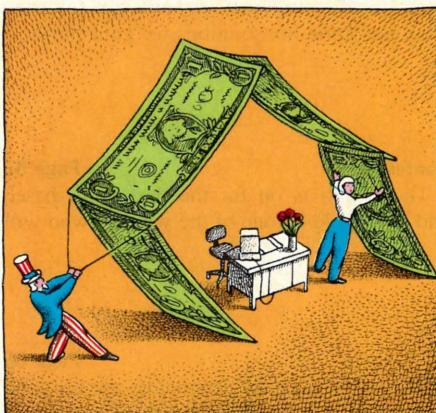
Reviews of *PC-Write Lite*, *Better Working Word Publisher*, and *Nisus*, three solid word-processing programs, and *Micrografx Designer*, a powerful drawing tool for desktop publishers and designers.



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## ADVISORY BOARD

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## QUESTION AND ANSWER

### ShopTalk

**Readers Talk Business.** HOME-OFFICE COMPUTING's editors answer readers' questions on setting type electronically, depreciating a business computer, and renting out customer lists. *Plus:* Readers give advice on keeping magazines in order and dispelling work-at-home image problems.

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### Clinic

**Readers Swap Technical Advice.** HOME-OFFICE COMPUTING's editors answer readers' questions on salvaging a 300-bps modem, the advantages of PostScript-compatible printing, and hard-wired data transfers. *Plus:* Using your word processor's search-and-replace function to save keystrokes.

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## COLUMNS

### Working Smarter

**Just Say No to Distractions.** According to columnists Paul and Sarah Edwards, the key to avoiding the pitfalls of working from home—the TV, neighbors, and so on—lies in maintaining a professional work structure.

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### Workstyles

**The Mommy-and-Daddy Track.** Our telecommuting senior editor Nick Sullivan pauses to reflect on some of the dilemmas and rewards of raising children and working from home.

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## BUSINESS

### Finance

**Fight for Your Business Tax Deductions.** Even if your fledgling enterprise isn't profitable yet, there are ways to safeguard your right to business deductions. Here, you'll find out how the IRS judges whether an activity is a business or a hobby.

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### Business 101

**Improve Your Finances with the Right Accountant.** The services of a good accountant are a must for a home-based business person. The recommendations and advice here will help you find the right accountant.

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### Letters

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### Up Front

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News, advice, tips, and a shot of humor on using home-office technology and running a home business. *This month:* New across-the-board 24-hour technical support, getting a balance on your Social Security account, lawyers on-line, record numbers of women opening home businesses, recycling laser-printer cartridges, and more.

### Desktop Publishing

Page 22

*PageMaker: Better Than Ever, But Is That Good Enough?* The latest version of Aldus's *PageMaker*, the market leader of page-layout software, incorporates several enhancements in document handling, typography, and word processing that add even more power to this top-flight desktop-publishing tool.

### Software Solutions

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**The Best Ways to Build an Error-Free Database.** Careful keystroking and software knowledge are important factors for building and maintaining a clean database. But, with new and powerful applications that can double-check your data entry for you, keeping accurate records is easier than ever.

### Telecomputing

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**The Five Best Reasons to Go On-Line.** Telecommunications can be a powerful but confusing tool for business people. The five reasons listed here provide you with hard-core, real-world reasons to go on-line.

### Home-Office Shopper/Classifieds

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### Editorial Product Index

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\*Q&A awards: #1 Corporate Satisfaction PC Week 1/89; Software Digest #1 Network File Manager 1/90 and #1 File Manager 2/88; PC World's World Class 9/88 and 9/89; InfoWorld 9.3 rating 5/88; PC Magazine Editor's Choice '87 and '88, and Technical Excellence 1988. Q&A is a trademark of Symantec Corporation. © 1990 Symantec Corporation

# I Love Treadmills and Metaphors, So Guess What's Coming



Recurring respiratory ailments plagued me in my childhood and kept exercise out of my regular routine. My exercise history began as an adult with dance—both modern and ballet. Had I looked, I would have found deep meaning in my responses to the two styles. Despite the bohemian image I affected at the time, I much preferred the structure of ballet to the free form of modern, which I can't always recognize as dance.

After a while I switched to dance/exercise classes. Structure but no individuality and, for me, a short-lived success. Then I took to the outdoors. Jogging, more like slogging, was my "sport," until an injury and a chiropractor reduced my already slow pace to a fast walk and, finally, weirdos, weather, and carbon monoxide killed my enthusiasm for "fresh" air. No control. Not for me.

How about indoor options? Exercise bike? A bore. Rower? Not comfortable—and a bore! A treadmill? Nirvana! I determine how long, how fast, how inclined my workout will be. I'm never bothered by exposure to the elements or exposed elements (not unusual hazards on New York streets at dawn).

Psychologically, the treadmill and I are a perfect match. It's got a structure, but I still have some control. It's like being on the proverbial treadmill of a wonderful job. Someone else still sets the basic parameters, but you're free to excel.

Take my situation, for example. I work for a fairly large company, contributing my

ideas, energy, time, and commitment in exchange for a steady paycheck. While I may be a closet independent, these latent tendencies seldom come to the fore.

It's pretty obvious that I need the security of a regular job, direct deposit, and the raft of benefits and perks. Although within the corporation I am a recognized enemy of bureaucracy, my rebellion operates within a controlled set of circumstances.

If that security went away, if my job evaporated, what would I do? After much soul-searching, I would say that I would be "fired into success." I believe I could start a viable operation of my own, but my boss would have to say "Go!" before I would take the steps necessary to go it alone.

That brings us to our cover story and to the people who have that tale to tell. In this age of corporate cutbacks, this is the fate of a growing number of Americans.

Sudden, dramatic changes in people's lives and the need to respond to them constructively are bound to occur frequently as we live longer and our economy changes. As our economy becomes service-based and highly technological, the types of employees needed to run it change as well. Some will make minor changes when confronted with new circumstances. Others will transform their lives. Many of our readers have stopped looking at themselves as employees and have started to take on the responsibilities and perspective of someone running the show.

Several novels I've read lately revolve around characters who reinvented themselves as circumstances around them changed. This concept has been much on my mind—and my tongue. When I bring up the subject in conversation, I am surprised at the number of people I know who feel that they too have reinvented themselves at various turns in their lives. When I think about it, reinventing yourself is what HOME-OFFICE COMPUTING helps you do.

*Claudia Cohl*

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EDITOR-IN-CHIEF

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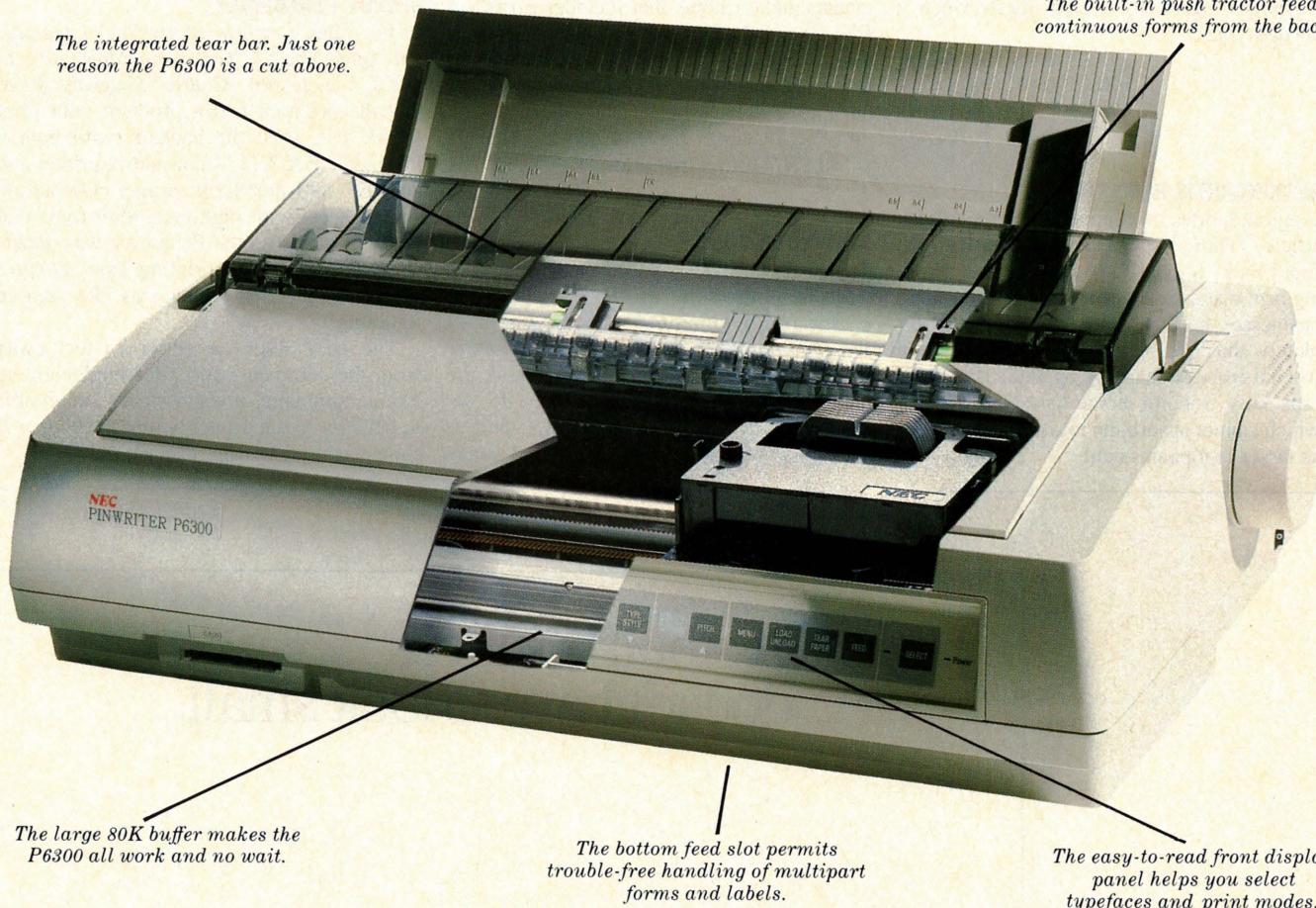
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# Only the new NEC P6300

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*The built-in push tractor feeds continuous forms from the back.*



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*\*Color kit sold separately.*

the beauty of the P6300 (and its narrow-carriage brother, the P6200) extends beyond the printed page. Because they give you the ability to print on everything from 24-pound letterhead and envelopes, to continuous forms, labels, and card stock. Plus the ease to go from one to another, from one minute to the next.

It takes guts to say the Pinwriter P6300 is the best dot-matrix printer you can buy today.

It takes a lot less than you think to bask in its glory.

**NEC**

**SUCCESS STORY**

I just wanted to give my thanks to the staff of HOME-OFFICE COMPUTING for producing such a special publication. Thank you for the guidance and inspiration your magazine gives me.

If you're interested, here's a brief profile of one of your fans: Six years ago I was making \$7.50 an hour working as a secretary in a Big Eight accounting firm. Today I run a home-based business specializing in seminars for support staff. My projected income for this year is \$75,000.

Thanks again for being there when I needed you.

SHELLY ANN ESPINOSA,  
EXECUTIVE DIRECTOR  
WORKING SOLUTIONS

Thornton, Colorado

**BACKING UP IS HARD TO DO**

Congratulations on Stephen Miller's August article "Three Easy Backup Strategies That Can't Fail" (page 48). As head of a consulting firm that caters to medium-size and small businesses here in Chicago, I agree completely that you can never be too careful when it comes to backing up data. This holds especially true for home-based businesses, which cannot absorb the loss of valuable data as larger companies can.

I'd like to add a suggestion of my own for protecting your data. In the article, Audrey Edwards states that she likes to store her files on both her hard-disk drive and a floppy disk. Storing regularly on a floppy is a great practice. I also save the file on my hard-disk drive—but in a separate subdirectory from the program I'm running. Then, if any disk defects or other problems creep up in the application area, the files will be intact. You can always reinstall an application.

Our firm covers data protection and backup for our clients with a custom system-management scheme that includes *FastBack Plus*, *Norton Utilities*, and *Direct Access*. These programs can make it a little easier to follow the three rules of computing: back up, back up, and back up.

GLEN J. STEPHAN, PRESIDENT  
ALEXANDRIA INFORMATION SYSTEMS  
Chicago, Illinois

**STAYING IN TOUCH**

Thank you for Corey Sandler's piece on telecommunications in the August issue ("Staying Connected to the Business World," page 52). It never ceases to amaze me that so many people who should use telecommunications are afraid to do so. With today's available technology, there is no excuse for not being able to find some-

body wherever they are (unless they are on vacation or incommunicado).

I am presently helping to establish a social-services office in Moscow, and I've discovered that even in the Soviet Union it is relatively easy to utilize e-mail, at least locally. (You couldn't make a call to the United States if your life depended on it, but calling up other local offices to dump e-mail is a snap.)

DEAN HUGHSON  
Scottsdale, Arizona

**SPEEDY PERFORMER**

In his August review of Borland's *Quattro Pro* spreadsheet ("One Fine Alternative to 1-2-3," page 66), Charles Gajeway noted that the program had a problem with print speed. I've used the package with both a Panasonic KX-X1124 dot-matrix printer and an NEC 890 PostScript printer. Outputting spreadsheets with high-resolution fonts and fancy graphics on the Panasonic was understandably slow, but printing from *Quattro Pro* with the laser printer was like greased lightning!

The NEC 890 was about 25 feet away from the computer, and after implementing a print command, it was virtually impossible to get over to the printer before the page was composed and starting to print out.

## A small business doesn't have to look small.



You may be a small business. But you've got big ideas. So why print them on anything less than a LaserJet printer from Hewlett-Packard? The LaserJet IIP printer gives you impressive

300 dpi print quality. For not much more than the cost of a dot matrix printer. It's small. It's quiet. And it's compatible with virtually all software. Beyond this, the LaserJet IIP offers you

## LETTERS

I haven't used this package on a LaserJet yet, but I'd guess the speed would be more than acceptable. In fact, along with its excellent graphics, dynamic linking capabilities, and attractive fonts, *Quattro Pro's* print speed makes it a winner in my book.

PETER MILTHORP

PERSONAL COMPUTER CONSULTANTS

Willowdale, Ontario

### SOUND SHOPPING ADVICE

My partner and I have dabbled with a home-based genealogy business for 25 years now. Our 11 (collective) children have left home, our husbands are retired, and we are expanding our business. Your publication provides just the information we need as we update our computer hardware, automate our accounting, and enter the world of desktop publishing.

We especially value the times your magazine reaffirms some business or computer strategy we've already discovered—it increases our confidence—and each issue's many new ideas and hints increase our enthusiasm as well. In the fourth edition of our basic genealogy textbook, we included a chapter on selecting a personal computer. "Choosing the Best Computer," by Edward P. Stevenson in the August issue (page 54), was just the reference we needed to double-

check that our information was accurate and up-to-date before going to press.

LAUREEN R. JAUSSI

THE GENEALOGY TREE

Orem, Utah

### PHOTO SUGGESTIONS

As someone who has been running a professional photography studio for over 18 years and has photographed everything from week-old babies to senior citizens, I enjoyed reading "Make the Most of Your Photo Opportunities" (page 38) in the August issue. Most of the Edwardses' advice was sound, but I'd like to include some of my own suggestions, which might help people save some money and time when they have a professional business portrait taken.

The article suggests getting a good supply (25 or more) of 8½-by-11-inch or 5-by-7-inch glossies. Unless you are a model or actor, you probably won't need 25 photographs. Most of the business people we photograph order 2½-by-3½-inch wallet-size photos to send to newspapers and professional journals.

The Edwardses also assert that you should have your hair and makeup done professionally. This, again, is good advice for models or actors, but business people should attempt to look as natural as possible.

The piece also warns that you will spend several hours with your photographer. This information holds for advertising photographers, who take all day to get a couple of great shots. For the most part, our business portrait sittings take between 30 and 45 minutes, including a couple changes of clothes.

GEORGE YEAGER

COMMPHOTO

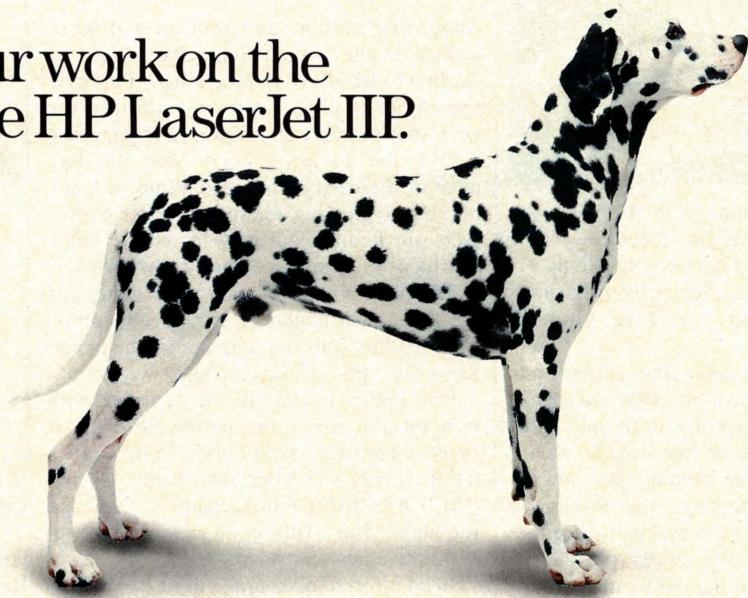
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### CORRECTIONS

In the Up Front section of the August 1990 issue we published an incorrect telephone number for OnTrack Data Recovery ("Data Doctors Save Drives," page 14). The correct phone number is (612) 937-1107. The company also has a toll-free line: (800) 872-2599.

*HOME-OFFICE COMPUTING looks forward to letters from all readers. Please direct correspondence to Letters to the Editor, HOME-OFFICE COMPUTING, 730 Broadway, New York, NY 10003. Include name, address, and telephone number. We cannot respond to every letter we receive, and those letters included in HOME-OFFICE COMPUTING may be edited for length and clarity. ■*

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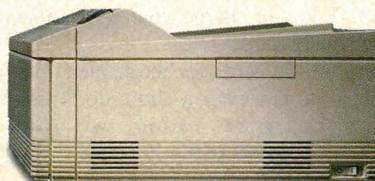


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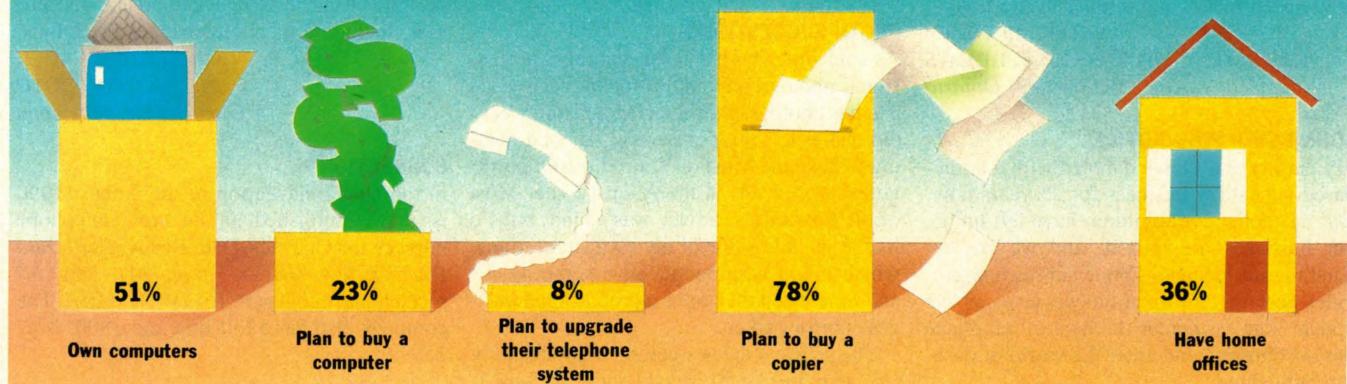
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## Women Are Heading Home



Executive and professional women are setting up home offices in record numbers, according to a recent survey of American businesswomen, conducted by Business Women Leadership Media ([212] 695-3000), a New York City-based market-research firm. Of the 1,432 women polled, 36 percent have home offices. Close to 60 per-

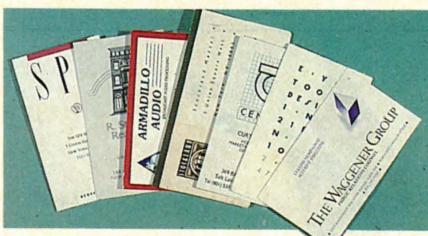
cent of women who run their own businesses have home offices. An additional 7 percent of respondents plan to set up a home office in the near future. Other survey results point to women as big buyers of home-office equipment.

Data for the survey were collected and tabulated by Beta Research Corporation, in

cooperation with 11 professional women's associations, including the National Association of Female Executives, Financial Women International, American Medical Women's Association, Society of Women Accountants, Federation of Press Women, and American Business Women Association.

—KAREN KANE

## \$10 Can Put You in Business



Are you toying around with the idea of a sideline business, maybe freelance writing or tax preparation? Launch yourself by ordering business cards. Seeing your business in print may help you take yourself seriously.

Or you can try encouraging a friend into entrepreneurship. Business cards are a great gift. Keep a few dozen of your friend's cards to distribute on his or her behalf, with a warning that you'll be handing them out.

One catalog company, the Stationery House, has a nearly perpetual half-price sale on business cards. For \$9.95 plus \$2.95 shipping, you can order 500 cards printed with raised letters on white stock. Call (301) 739-4487 or the toll-free number (800) 638-3033. You can charge your purchase to a major credit card.

There is room on the cards for the name of your organization and even a short slogan. Most orders arrive within two weeks.

—DANIEL P. DERN

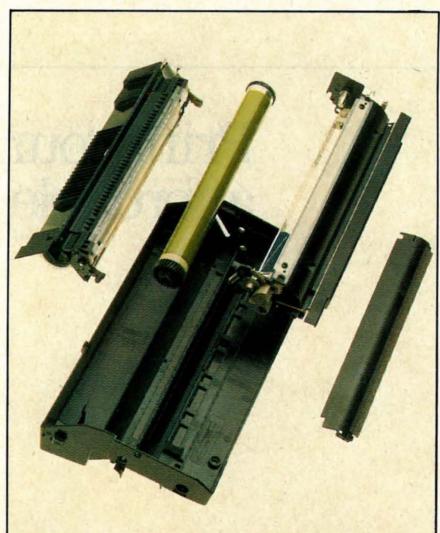
## Printer Companies Turn a Little Green

About four million laser printers will be in service in the United States by 1991, according to BIS CAP International. If each of these printers uses five toner cartridges per year, that's almost 20 million cartridges that have to be discarded every year. So far, most of the used cartridges end up as landfill, but a growing number of laser-printer users are figuring out how to recycle toner cartridges to save money and reduce waste.

The most popular type of toner cartridges are single, self-contained, replaceable units. But the toner runs out long before the image drum (also part of the cartridge) wears out.

One option is to refill the cartridge with new toner a few times before throwing it away. Companies such Spring Point Corporation ([212] 941-8190) and Laser Charge ([512] 832-0079) will recharge a cartridge for about \$60. This compares with about \$100 for a new cartridge.

In an effort to discourage third-party recycling efforts and hold on to the laser-cartridge business, Canon and HP have started toner-cartridge recycling programs. UPS will pick up your used cartridges free of charge and deliver them to a central collection site. To participate, you'll need a toner-cartridge recycling kit, available at no charge from printer dealers and resellers.



Help the environment by returning your used toner cartridges.

For every cartridge you donate, Canon or Hewlett-Packard will donate 50 cents to the National Wildlife Federation and 50 cents to the Nature Conservancy. The companies will then take apart the cartridges, melt them down, and make new cartridges. Unfortunately, you will still have to buy new cartridges. The pilot program will cover 11 Western states and eventually expand to the rest of the country. —STEVEN C. M. CHEN

# Seeing is believing.

*We created this ad using  
WordStar 6.0*

The other major word processing software ads will show you photos of output. Our ad has no trick photography, retouching, or other razzmatazz. It was done with WordStar 6.0, so you could see just how powerful this new word processing program is.

## Create, edit and print graphics or text.

WordStar 6.0 supports the latest laser printing technology found on the HP® LaserJet III®. You can use all available scalable fonts, in sizes from 2 all the way up to 999 point, bold, italic, outline, or even reversed.

File To View Options Return to Editing F1 Help PAGE 1

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print? With our exclusive Advanced Page Preview™, you can zoom in to check details on a page, or see entire pages—up to 144 at a time\*—to preview fonts, styles, graphics, columns, or page breaks. No other word processing package can match Advanced Page Preview for WYSIWYG.

So advanced, it's easy. You might expect a program as advanced as WordStar 6.0 to be tough to learn. Quite contrary, WordStar 6.0 was the first program to incorporate industry-standard SAA pull-down menus. So help is only a keystroke away.

WordStar is the only program with commands designed so that those who type by touch never have to lift their hands from the "home row." So whether you "hunt and peck," or type by touch, you'll find WordStar easier to learn and use.

Screen capture of Advanced Page Preview

Want to see how your work will look before you

print? With our exclusive Advanced Page Preview™, you can zoom in to check details on a page, or see entire pages—up to 144 at a time\*—to preview fonts, styles, graphics, columns, or page breaks. No other word processing package can match Advanced Page Preview for WYSIWYG.

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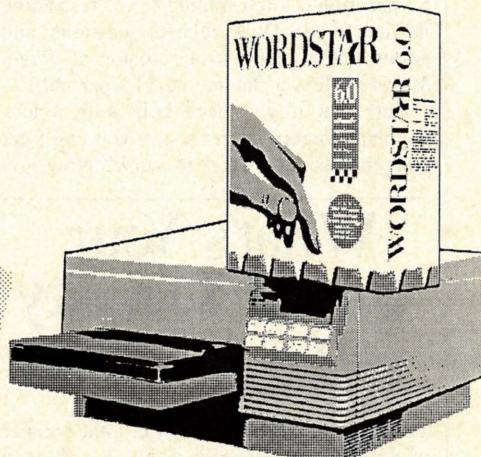
WordStar is the only program with commands designed so that those who type by touch never have to lift their hands from the "home row." So whether you "hunt and peck," or type by touch, you'll find WordStar easier to learn and use.

## See for yourself.

To see how quickly and easily you can create and print polished letters, reports, newsletters—even ads—call toll-free:

**1-800-227-5609.** We'll be happy to prove to you why over 3,000,000 people worldwide use WordStar.

If you're a WordStar user, see real savings when you update to WordStar 6.0 now.



## WORDSTAR 6.0

**1-800-227-5609**

\* Depending on monitor. HP and LaserJet III are trademarks of Hewlett-Packard Company. Advanced Page Preview is a trademark of WordStar International Incorporated.

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## Dial a Computing Coach

It's 11:33 a.m. and the sales report that you absolutely, positively have to fax to your client by noon just won't print. You're doing something wrong, but you have no idea what. The good news: The advice required to get you back on track is just a phone call away. The bad news: You'll probably have to pay for it.

Technical support for hardware and software comes in almost as many varieties as snowflakes, and now there's a new one—the 900-number. The 900-number is trendy in the computer industry. Independent pay-as-you-go lines are cropping up to help folks who have purchased products from companies that provide limited support or none at all. And manufacturers are also instituting them to beef up already existing service.

Microsoft, Aldus, and Buttonware, for instance, all have 900-numbers; Lotus has one in the works, and dozens of other manufacturers will likely follow in the next year or so. The concept is simple: If you find yourself in a lurch using the company's product, you dial its 900-number for immediate coaching. The cost of the consultation appears on your phone bill. Buttonware ([900] 454-8000), the maker of *PC File*, charges \$1 per minute (the first minute is free); Microsoft ([900] 896-9000) charges \$.2 per minute (first minute free), restricting its line to MS-DOS-related questions; and Aldus ([900] 226-2261), creator of *Page-Maker*, offers a flat fee of \$15 per call.

But what if you need help with a less popular program or, let's say, you can't get your modem or printer to work? Now you



Folks from the Computer Answer Center can solve your computer problems around the clock.

have three, \$2-per-minute alternatives: Direct Help, the Computer Answer Line, and PC Helpline. Each provides support for a wide range of hardware and software products and will talk you through almost any problem you have.

Direct Help ([900] 990-0111), founded by computer manufacturer CompuAdd, provides \$2-per-minute support (first minute free) from 8:00 a.m. to 7:00 p.m. Central time. If the support person is stumped by a question pertaining to a standard product, he or she will research the answer off-line and call you back free of charge.

The Computer Answer Line ([900] 446-2468), run by the Kirin Computer Corporation, is open round the clock. Kirin, which

built a lucrative business as the 800-support number for a variety of manufacturers, is prepared to answer questions related to more than 600 hardware and software products. Not to waste an iota of the staff's know-how, it has introduced a 900-number.

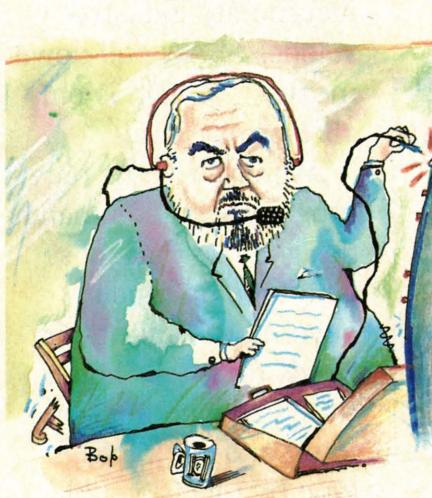
PC Helpline ([800] 366-8125) bills the \$2-per-minute support fee to your MasterCard or Visa. Open 9:00 a.m. to 6:00 p.m. Eastern time, PC Helpline touts itself as a good place to turn for objective recommendations on hardware and software purchases. Why an 800-number? The founder didn't want folks who work for one of the many companies that prohibit the dialing of 900-numbers to be locked out.

—LIZA SHAFER

## What's Your Social Security Balance?

To get a free statement of the total balance in your Social Security account, call your local Social Security Administration (SSA) office or (800) 234-5772 and ask for a Personal Earnings and Benefit Estimate Statement (PEBS) request form. A PEBS gives you yearly details of your earnings and Social Security contributions. It also shows how much you can expect when you retire or if you're suddenly disabled, and how much your spouse would collect if you died. It's worth sending in a PEBS request form every few years since the SSA won't correct errors more than three years, three months, and 15 days old. There is no fee for this service.

—DAVID HALLERMAN



Lawyers are often the butt of jokes. For example: Why do they bury lawyers eight feet deep? Because *deep down* they're really nice guys.

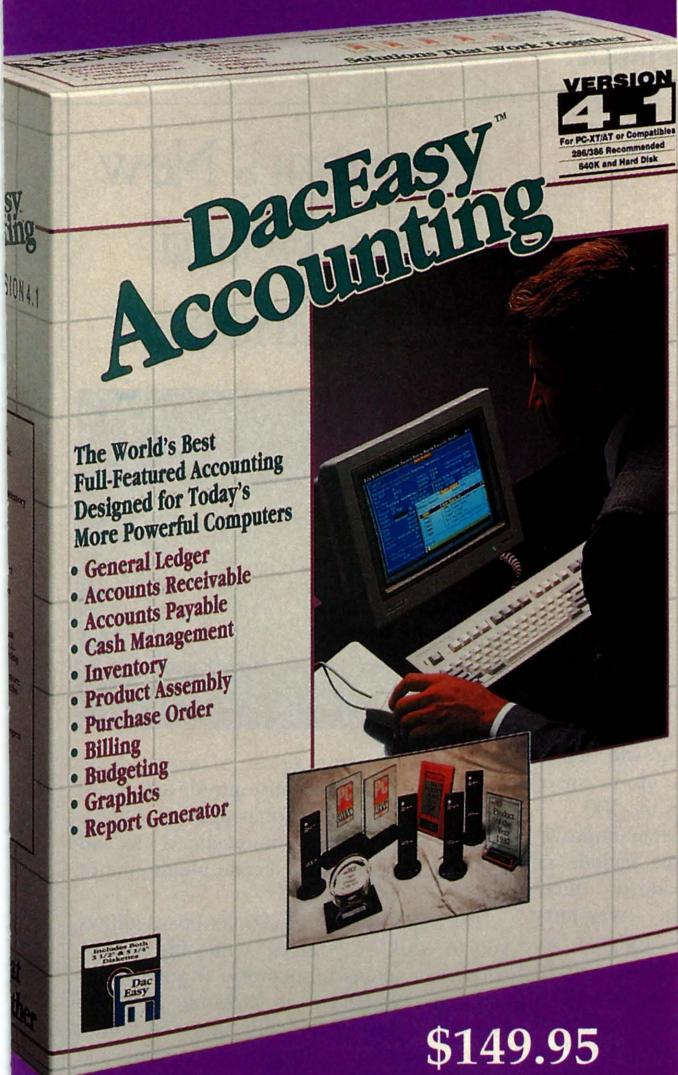
## Attorneys On-Line

The lawyers who are giving free advice on-line are nice guys.

The Electronic Bar Association, led by Paul Bernstein, is an on-line special-interest group for lawyers and others who need legal advice. This service is available through BT/Tymnet ([800] 543-3496, ext. 909). With the exception of BT/Tymnet's membership and on-line connect charges, the Electronic Bar Association is free.

You might want to ask experts about the advantages and disadvantages of incorporation, for example, or learn about estate planning. Confidential e-mail is available for discussing more delicate personal matters.

If you still need to personally consult an attorney, the on-line lawyers can refer you to lawyers in your area. —KAREN KANE



For versatility and ease of use, DacEasy is hard to pass up.  
- PC Magazine, April 10, 1990

When it comes to accounting packages, the easiest takes the spoils (DacEasy).  
- InfoWorld, March 5, 1990



#### The Most Award-Winning Accounting Software Ever!

DacEasy Accounting 4.1 continues a winning streak that includes four *PC World* World Class Awards, two *PC Magazine* Editor's Choice, and two *InfoWorld* Product of the Year awards, making DacEasy the most award winning full-featured accounting software ever.

# DacEasy™ Accounting Treats Small Business Like Big Business

## Big Business Features at a Small Business Price

There's no reason why your small business should settle for anything less than the best accounting software. DacEasy Accounting 4.1 offers all the features, performance, and ease of use you would expect to find in an expensive, **BIG** business accounting system, for a price that fits your small business budget.

With over a half million users, DacEasy Accounting has become the worldwide leader in small business accounting systems. **New, Version 4.1** has 11 fully integrated modules with powerful features like transaction-oriented pull-down menus, unlimited transactions, auto-reversing transactions, instant lookups, cash management, product assembly, a versatile report generator, and built-in graphics. And for less powerful computers, there's DacEasy Accounting 3.1, the only full-featured accounting system for dual floppy systems!

## A Big Commitment to Customer Support

It takes more than a great product to become the best selling accounting system. The new DacEasy Advantage Club provides a full year of priority telephone support, free revisions and updates, free editor disks, informative newsletters and more, for a low annual membership fee. With DacEasy you get **BIG** help, for a small price.

To help you get even more from your software, DacEasy offers a **BIG** choice of training resources, a Certified Consultant Program to provide you with names of qualified professional consultants in your area, and a full line of high quality forms and checks designed to work perfectly with your DacEasy software.

## DacEasy is Ready to Grow with Your Business

As your small business grows, you can easily add to or upgrade your DacEasy Accounting 4.1 software.

DacEasy Payroll 4.1 is the **BIGGEST** value in payroll and personnel management software. And, the **BIGGEST** value in complete accounting and payroll software is the DacEasy BonusPack, which includes DacEasy Accounting 4.1, Payroll 4.1, plus an instructional Video Tutor.

When your business grows into a multi-user system, you can easily step up to the DacEasy Network Accounting System.

Don't think small when choosing your accounting software. Insist on DacEasy, the **BIGGEST** value in powerful, easy to use full featured accounting solutions.



Contact Your Local Dealer, Or Call

**1-800-877-8088**

In Canada call 416-940-3314

Media code: 921

 **DacEasy, Inc.**

17950 Preston Road • Suite 800 • Dallas, Texas 75252

Minimum Hardware Requirements: DacEasy Accounting 4.1 and Payroll 4.1 require an IBM or compatible PC, 640K RAM, hard disk, MS-DOS/PC-DOS 3.0 or later, mouse optional. DacEasy Accounting 3.1 requires an IBM or compatible PC, 256K RAM, 2 floppy drives, MS-DOS/PC-DOS 2.0 or later. DacEasy Network Accounting supports Novell, IBM PC NET, or any DOS 3.1 Net Bios compatible system, IBM or compatibles, hard disk MS-DOS/PC-DOS 3.1 or later. IBM, Novell, Microsoft, PC-DOS, MS-DOS are trademarks of their respective corporations. DacEasy is a trademark of DacEasy, Inc.

## A New, Improved (And Cheaper) Ink-Jet: HP DeskJet 500

If you're looking for a low-cost, near-laser-quality printing solution, look no further. The new Hewlett-Packard DeskJet 500, an upgrade of the DeskJet and DeskJet Plus printers, boasts a low list price of \$729. For the cost of a mid-range 24-pin dot-matrix printer, you can now quickly print professional-looking output.

The new DeskJet continues with the improvement trends in the product line: The built-in fonts have been expanded to four (CG Times and Letter Gothic are the new faces), and additional font cartridges are also available at \$79 each. Additionally, the DeskJet's proportionally spaced fonts feature kerning that compares favorably with a laser printer's. The printer's ink, which streaked and smudged in earlier versions, is now much more water- and smear-resistant.



A powerful Windows 3.0 printer driver will be available for the DeskJet 500 in late fall (it will be sent free to registered owners). The driver will let you scale fonts on the fly and will also provide on-screen WYSIWYG

fonts. Owners of older-model DeskJets won't be left out in the cold; a \$225 (\$175 for the DeskJet Plus) factory upgrade path is available to bring old DeskJets up to speed with the 500.

Other improvements include an expanded, three-year warranty (the longest we know of for any printer), and a print speed of three pages per minute (2 ppm for graphics). Altogether, the many impressive features of the Hewlett-Packard DeskJet 500 make it an ideal printer choice for those who crave stylish, professional-looking output at a reasonable price.

—STEVEN C. M. CHEN

## Fremont's New Fax Board Solution



Fremont Communications, a small Silicon Valley company, recently introduced an inexpensive fax device for people who occasionally need to send or receive a fax but don't want to install a second phone line or purchase a fax switch.

The \$195 Frecom Fax96 fax board allows you to work on your PC while the board's software remains in memory. If your phone rings and you have an incoming fax, the board will answer the call, alert you with a dialog box that a fax is coming in, and automatically save the fax to your hard disk.

For outgoing faxes, the Fax96 can automatically generate a cover page with your name and number. Any fax numbers you enter are stored in a 1,000-name directory, so you needn't retype the same information the next time you send a fax to a particular destination. You can also have the board send your faxes to multiple destinations—and at night when rates are lower.

As with most fax boards, you are limited to sending text files, scanned images, or files created by paint programs (PCX and TIFF format). But Fremont is reportedly adding word-processor support in the form of an Epson printer emulator in a new version of the board.

—JIRI WEISS

## PostScript Printer from Panasonic



ice laser printers. Unlike the earlier model, the KX-P4455 is equipped with Adobe PostScript. What makes this printer revolutionary is its \$3,495 price tag. There are lots of PostScript printers around—even some at this price level—but there is no other PostScript laser at this price that prints 11 pages per minute.

For your money, you get a fast printer with two 250-sheet paper cassettes, a font-cartridge slot, 2MB of RAM, and 39 Adobe typeface outlines. The PostScript capabilities allow you to create and print fonts of almost any size and in four styles (roman, italic, bold, and bold italic) from each typeface. For use with software that doesn't have PostScript drivers, the new Panasonic printer can emulate the HP LaserJet Series II and the Diablo 630.

—EDWARD P. STEVENSON

Panasonic has unveiled a new version of its venerable KX-P4450 Laser Partner. Like its predecessor, the newcomer, dubbed the KX-P4455 Laser Partner, is an 11-page-per-minute printer—faster than most popular of

**About Product Previews:** In this monthly department, you'll read about new and notable hardware and software for the home office. While not complete reviews, mentions in Product Previews are based solely on the editors' evaluations rather than manufacturers' press releases. Many of the products that appear here will be reviewed fully in later issues.

# The "Best and Brightest" of the Year.

*dex*<sup>®</sup> 150 PowerFax<sup>™</sup> from Fujitsu.



Home-Office Computing  
magazine December 1989.



In December 1989, HOME-OFFICE COMPUTING magazine chose the year's "Best and Brightest" office products—their "Editors' Picks" for 1989.

From the hundreds of products they reviewed all year, they selected one fax for this special recognition—the *dex 150* PowerFax from Fujitsu. Here's why:

**"The moment I opened the box, I got the feeling the makers of this outstanding fax had my needs in mind."**

Of course we can't anticipate every need. But in the *dex 150*, we tried to anticipate the needs of most fax users...

**"The *dex 150* is packed with an impressive array of basic and advanced features."**

Features like a 20-page memory, FaxForwarding<sup>™</sup>, and autodialing for up to 76 fax and 76 telephone numbers. Plus activity reports, voice request, delayed transmission, broadcast and more.

Including one really unusual feature...

**"...the user's manual is a model of easy-to-use documentation."**

High praise indeed. And here's the bottom line...

**"...the price is certainly right considering the outstanding features."**

HOME-OFFICE COMPUTING describes their Editors' Picks for 1989 as "the products that we want—or think that you would want to run your business."

We couldn't agree more.

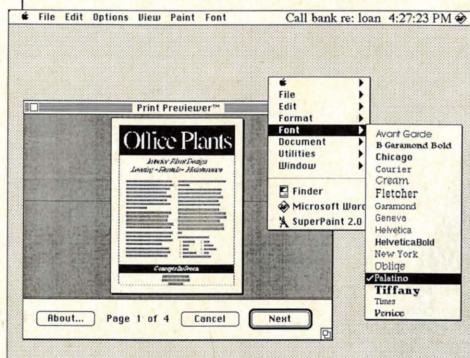
For more information on the *dex 150* PowerFax, contact Fujitsu Imaging Systems of America, 3 Corporate Drive, Commerce Park, Danbury, CT 06810. Or call: 1-800-243-7046.

*dex* is a registered trademark and PowerFax and FaxForwarding are trademarks of Fujitsu Imaging Systems of America, Inc.

# FUJITSU

The global computer & communications company.

## Handy Utilities to Customize Your Mac



Unlike most other publishers of utilities, Now Software, publisher of *Now Utilities*, is offering more than just a series of programs to fix your disk or eliminate viruses. These utilities are powerful system-enhancement schemes that let you customize and expand the capabilities of your Macintosh.

Although you might not need or use all 12 utilities, there are bound to be several that you'll find helpful and that justify the \$149 list price.

The utilities include AlarmClock, which displays the time and date and sets appointments; Customizer, which lets you customize fonts, icons, and windows in Finder; DeskPicture, which lets you easily customize the Desktop with color or black-and-white pictures; InstantAccess, which displays a menu of frequently used folders in the stan-

dard Open and Save dialogs; MemorySetter, which optimizes the allocation of RAM under MultiFinder; NowMenus, which lets you pop up the menu bar; Persistence, which prevents start-up icons from wiping each other out during booting; PrintPreviewer, which lets you preview your documents on-screen; Profiler, which provides analysis of your system and configuration; RearWindow, which lets you move or copy files from inactive windows without activating them; Startup Manager, which gives you full control over the loading of INITs and cdevs; and WYSIWYG menus, which display the fonts, sizes, and style as they really look.

I found AlarmClock quite useful. It displays the time and the date in the menu bar and lets you set appointments in one of several ways: one-time, throughout the day, daily, weekly, and monthly. Then it notifies you in a variety of ways: with a beep and a flashing message, menu bar, or Apple icon. I also liked RearWindow. It overcomes the irksome problem of trying to copy files from inactive windows without activating them. All in all, the package is a solid mix of useful utilities.

Someday Apple's System 7 will be here, but it's hard to imagine it will obviate the need for utilities like this.

—STEVEN F. EDWARDS

## Double Your Storage Capacity



Want to double the storage capacity of your hard-disk drive and disks? InfoChip Expanz!, a new hardware-based data-compression tool, can help. For \$199, a 20MB hard-disk drive can easily store between 40MB and 60MB of data and still be as fast as before. Expanz! works with all types of disks and hard-disk drives.

Expanz! is an eight-bit expansion card that drops easily into an empty PC- or AT-type slot. It currently works with DOS 3.X, but versions to support DOS 4.X and a faster 16-bit version will be available soon.

—STEVEN C. M. CHEN

## Accounting VAP (Very Affordable Package)

When I hear about software that sells for \$50, my first thought is of computer games, not "full-featured accounting software." But *Pacioli 2000* from M-USA Business Systems is just that.

It's a menu-driven, networkable, mouse-supported accounting system that comes with eight modules for \$50. There's a general ledger, of course, along with accounts receivable, accounts payable, inventory control, purchasing, billing, budgeting, and auditing modules. The software package—named after Fra Luca Pacioli, the fifteenth-century Franciscan monk who created the double-entry system of accounting—also includes a training videotape and unlimited free customer support to get you, and keep you, up and running.

My second thought when I hear of such inexpensive software is, I hope the publisher

Accounting Transactions Data Entry						
Date	Period	Ref.	Transaction #	Source	GL	
Accounts #	Account Name	Cal	Invoice	Discount	Discount	
	Description	Ref. #		Due Date	Available	
1122011	NMB Texas				2500.00	
1125001	Today's Collections					
1125001	Allied + MSS Co	000012				
	Your Remittance	00002		100.00	2200.00	
510401	Discounts					
	Your Remittance				100.00	
				Totals:		
				2200.00	2200.00	
Page: Previous Pg: Next						
F1-Help F2-Enclose F3-Automatic F4-Delete F5-Process						

will still be around to support me when I need it, because at \$50 a shot, it's probably not making enough to stay in business. M-USA does, in fact, make a profit on each package, but the company is more concerned with developing an ongoing relation-

ship with its customers. That's why *Pacioli 2000* is sold with a 90-day money-back guarantee.

"I want people to use our software," says company founder Jose Hurtado, who also designed the *DacEasy Accounting* package. And M-USA also wants to be your source for the preprinted accounting forms, business checks, stationery, and envelopes designed to work with the software.

The program requires a 640K IBM PC or compatible computer, a hard-disk drive, and a monitor with graphics capabilities. The mouse is optional, but recommended.

I was impressed by the program at first glance. Moving from module to module is facilitated by the well-designed menu system. The documentation is both complete and logically organized.

—DAVID HALLERMAN

# How to build a high-paying career, even a business of your own, in computer programming.



**RICK BRUSH,  
NRI PROGRAMMER/ANALYST**

**Start with training that gives you hands-on programming experience—at home and at your own pace. Training that begins with BASIC, then continues with Pascal, C, and COBOL—today's hottest computer languages. Training that even includes a powerful IBM-compatible computer, modem, and programming software you keep.**

**Start with real-world training. The kind of training only NRI provides.**

Now with NRI's new at-home training in Computer Programming, you can be one of today's highly paid, creative team of computer wizards who give computers the power to carry out an astonishing range of business, professional, and personal applications. Now, with NRI, you can be a computer programmer, ready to build a high-paying career—even a business of your own—making computers do anything you want them to do.

**The only programming course that includes a powerful computer system and software you keep.**

Unlike any other school, NRI gives you hands-on programming experience with a powerful IBM compatible West Coast computer system, including 2400

baud internal modem, 640K RAM, disk drive, monitor, and invaluable programming software—BASIC, Pascal, C, and COBOL—all yours to keep.

You get the experience and the know-how, the computer and the software to get to the heart of *every* programming problem, design imaginative solutions, then use your choice of four key computer languages to build original, working programs.

**No matter what your background, NRI gives you everything you need to succeed in programming, today's top-growth computer career field.**

You need no previous experience to build a successful programming career with NRI training. Indeed, your NRI lessons start by walking you step by step through the fundamentals, giving you an expert understanding of the programming design techniques used every day by successful micro and mainframe programmers. And then the fun really begins.

C, and COBOL. Then, rounding out your training, you use your modem to "talk" to your instructor, meet other NRI students, even download programs through NRI's exclusive programmers network, PRONET.

**Your career in computer programming begins with your FREE catalog from NRI.**

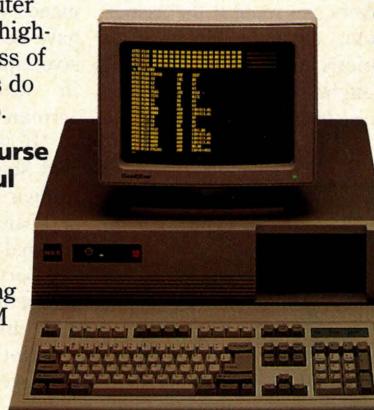
For all the details about NRI's at-home training in Computer Programming, send the coupon today. Soon you'll receive NRI's fascinating, information-packed, full-color catalog.

Open it up and you'll find vivid descriptions of every aspect of your NRI training. You'll see the computer system included in your course up close in a special, poster-sized foldout section. And, best of all, you'll find out how your NRI training will make it easy for you to build that high-paying career—even a business of your own—in computer programming.



**You master today's hottest computer languages, gaining the skills you need to build programs for a wide variety of real-world applications.**

With your personal NRI instructor on call and ready to help, you use your computer and software to actually design, code, run, debug, and document programs in BASIC, Pascal,



**Only NRI gives you an IBM-compatible computer with modem, 640K RAM, disk drive, monitor, and software—BASIC, Pascal, C, and COBOL—all yours to keep!**

**Send for your NRI catalog today. It's yours, free.**

If the coupon is missing, write to us at the NRI School of Computer Programming, McGraw-Hill Continuing Education Center, 4401 Connecticut Avenue, NW, Washington, DC 20008.

IBM is a Registered Trademark of the IBM Corporation

## **NRI School of Computer Programming**

McGraw-Hill Continuing Education Center  
4401 Connecticut Avenue, NW  
Washington, DC 20008



**YES! Please rush me my FREE catalog describing NRI's at-home training in Computer Programming.**

NAME	(please print)	AGE
ADDRESS		
CITY/STATE/ZIP		
5406-100		

Accredited by the National Home Study Council

# Readers Talk Business

## SETTING TYPE VIA MODEM

**Q.** As good as laser printers are, there are still times when I need to set type for a project. Are there any services to which I could send a file by modem and receive typeset copy in return?

KIRK WOODWARD  
PEOPLE CENTER PROGRAMS  
Grapevine, Texas

**A.** Many typesetting services—Desktop Publishing & Design in Boston ([617] 482-2122), Expertype in New York City ([212] 532-6222), and Southwestern Typographics in Dallas ([214] 748-0661)—accept files via modem and return typeset copy to you through the mail. Plan to spend \$10 to \$12 per page for typesetting. If your files are created with a desktop-publishing program such as *Ventura Publisher*, *PageMaker*, or *Adobe Illustrator*, it may cost less for typesetting than if you send an ASCII file from a word processor.

Check the yellow pages and newspaper ads for printing services in your area. You may discover that a local printer offers typesetting services via modem.

## DEPRECIATING A COMPUTER

**Q.** I've started earning a second income as a freelance programmer. Can I depreciate any part of the original purchase price of my computer, which I purchased in 1987? What about software books that I've purchased to help me with my projects?

JAMES F. YAREMKO  
Yonkers, New York

**A.** You can start depreciating the current value of your computer and software in the year you started using it for your business, not the year you purchased it, according to New York City CPA Thomas Morton. The current value (as opposed to the original purchase price) of your computer and software is depreciated over five years. If you use it only for business purposes, you can depreciate 100 percent of its current resale value; otherwise, you depreciate the portion used for business.

Or, as another option, Morton recommends that you consider taking the Section 179 deduction, which allows you a one-time write-off of the current value of your com-

puter, software, and books (up to \$10,000 yearly). You can take this deduction only if you use your computer equipment for business at least 50 percent of the time. And you cannot use the Section 179 deduction to create a business loss. Before you do anything, however, you should see an accountant. And remember: Hold on to all receipts.

## FOR RENT: MY LIST OF CUSTOMERS

**Q.** We have a collection of more than 5,000 names, addresses, and phone numbers on our computer. Are there companies that buy mailing lists?

PHILIP P. THOMAS, SR.  
THOMAS EXTERMINATING CO.  
Crisfield, Maryland

**A.** Businesses in your community that conduct direct-mail marketing campaigns—such as retail stores, plumbers, or home-improvement specialists—may be interested in renting your mailing list on a one-time usage basis.

Most of the time, a list manager serves as a liaison between the list owner and the list renter. You might, for instance, agree to rent 5,000 names for a minimum of \$300. To find a list manager who can match your list with potential renters, visit the library and consult the *Standard Rates and Data Services* volume on direct-mail lists.

If you need more assistance, contact the Direct Marketing Association (11 West 42nd St., New York, NY 10036; [212] 768-7277). Nonmembers can request the association's publications catalog, which offers several publications concerning mailing lists. One you might be interested in is a service directory of list brokers nationwide.

## SEND US YOUR BUSINESS QUESTIONS & TIPS

*If you have any home-office or business questions that you'd like answered, or advice that's sure to help other readers, write to us at ShopTalk. If we print your letter, we'll pay you \$25. Address correspondence to ShopTalk, HOME-OFFICE COMPUTING, 730 Broadway, New York, NY 10003. Name, address, and telephone number must be included. Because of the volume of mail, we are unable to respond to every letter.*

## READERS GIVE ADVICE

### KEEP MAGAZINES ORGANIZED

Of the many magazines to which I subscribe, there are two or three that I read cover to cover and save for future reference. While banker's boxes (cardboard boxes that hold magazines) will store them neatly for as many years as I wish, the problem of how to find an article I read a few months earlier plagued me.

I have solved the problem. First, I purchased a loose-leaf binder and a supply of clear plastic sleeves. Then I tore out the tables of contents from all those back issues and slid them each, in chronological order, into a sleeve. (I actually put two months in each sleeve, back to back.)

Now I can breeze through the binder and find the issue date and page number of the article I'm looking for, pull only that magazine from its box, and find what I need without searching through seven years' worth of back issues.

LISA NAPELL  
Scottsdale, Arizona

## SOLVING IMAGE PROBLEMS

A business associate of mine, Scott Perkins, recently helped me with a problem many of us who work from home face.

Scott is founder and president of Laser Storage and Graphics in Marietta, Georgia, a company that sells high-end CAD and network file servers. Scott told me he has faced several clients "who are impressed with what I can do and with the performance of my equipment, but still seem to have reservations about purchasing expensive equipment from somebody who works in what they regard as informal surroundings.

"If they appear worried about image," said Scott, "I ask them if I can add \$1,200 to their invoice to pay for a bigger trade ad so I can attract my next customer. If they're worried about reliability, I offer to double my service and installation fees so I can afford to come out to their office from a store downtown."

"Not surprisingly," he added, "nobody has taken me up on my offer."

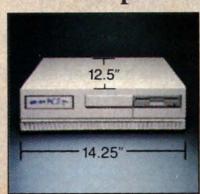
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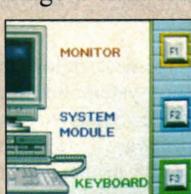
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# Readers Swap Technical Advice

## CABLE COMMUNICATIONS FOR COMPUTERS

**Q. I have two computers, an IBM-XT and an AT. I need to transfer large numbers of files directly from one to the other using a cable. What is the best method to do this?**

DENNIS C. DISMACHEK  
Scotts Valley, California

**A:** Fortunately, this is much easier than it used to be. To do a direct file transfer (without a modem) you need a "null-modem" cable and some way of getting the computers to send and receive files. The null-modem cable is no problem, but handling the communications takes real expertise.

The expedient solution is one of the hardware-software products like Brooklyn Bridge (\$140 from Fifth Generation), LapLink III (\$150 from Traveling Software), HotWire (\$129 from DataStorm), or FastLynx (\$149 from Rupp). With the exception of Brooklyn Bridge, these packages originated as communications links between laptop and desktop computers with incompatible disk formats, but they work perfectly well for communications between two desktop computers.

Each product supplies the necessary cable (with every possible configuration of connectors) and software that makes file transfers quick and easy. All four products support transfers through the computers' serial ports at rates as fast as 200,000 bps. Brooklyn Bridge, FastLynx, and LapLink also support parallel-port transfers, which can be more than twice as fast.

## CAN THIS MODEM BE SAVED?

**Q. My friend has a 300-bps modem for his Commodore 64. Would it work for my IBM? If not, what kind of a modem should I use?**

MICHAEL LEE  
Vancouver, British Columbia

**A:** The Commodore 64 uses a different type of serial port connection than any IBM compatible. Although you might find an adapter that would enable you to connect the modem to your computer, you'll still face two problems.

First, you'll need to get your hands on an MS-DOS communications-software package; there's no way to run Commodore 64 software on an IBM PC. Most MS-DOS communications software assumes that the modem it is controlling uses the Hayes AT command set, which the modem in question

probably does not. You would need to find customizable software and tinker with it until you get the settings right. Second, even if you do get the modem to work, after the first half hour, telecommunications at 300 bps is going to seem agonizingly slow. The standard today is 2,400 bps, eight times as fast as 300 bps.

If you're really interested in exploring telecommunications, why not buy your own modem? The on-line world is fascinating but quirky, and you might as well make it as easy on yourself as possible. Having up-to-date hardware and software—with documentation—can make the difference between success and frustration. You can get everything you need to telecommunicate in style for as little as \$70: the Practical Peripherals 1200-bps internal modem, for example (\$65 plus shipping from PC Connection), comes with *ProComm* 4.2, a fine communications-software package. The 2400-bps model (also with *ProComm*) is \$135.

One final suggestion: A subscription to CompuServe or Prodigy, two leading online services, can open the door to an exciting world of telecommunications, allowing you to tap easily into vast information resources for both business and recreation.

## POSTSCRIPT ON POSTSCRIPT

**Q. What is PostScript for a laser printer? What advantages would it give me for desktop publishing?**

DEMAS YAN  
San Francisco, California

**A:** PostScript is a "page-description language"—a programming system for printers—developed by Adobe Systems. Normally residing in "firmware" (a circuit board or boards) inside the printer, it tells the printer how to draw text characters and graphics on a page. Since its introduction in 1985, PostScript has been a key tool in the equipment of many desktop publishers.

With PostScript, users can create type for desktop-published documents that looks a lot like what professional typesetters provide. One of the things that makes PostScript so popular is the large number of typefaces (35 or 39) that come as standard equipment—and there is an almost unlimited selection of supplementary faces. A key feature of the language is that it can make type in virtually any size. Having a large selection of typefaces and type sizes gives

desktop publishers the flexibility to create a wide range of documents.

What PostScript does for type it also does for graphic images. "Encapsulated" PostScript graphics files can be incorporated into many types of documents, scaled to any size, and printed on any PostScript printing device—even "ported" between Macintosh and IBM systems—all with top-quality results. The technological trade-off for all this bounty is rather lengthy printing times.

Most sophisticated desktop-publishing software packages can translate the documents you create into PostScript code for printing (that is, they have PostScript drivers). Until recently, however, only a PostScript-equipped printer (one with PostScript-interpreter firmware built in) was capable of printing such a document. Until recently, such printers cost, on average, \$1,500 more than equivalent non-PostScript printers. Fortunately, this situation is changing: New PostScript printers are appearing at dramatically lower price levels (the recently released QMS-PS 410, for example, lists for less than \$3,000 and outperforms the \$4,499 Apple LaserWriter IIINT). Furthermore, you can buy true Adobe PostScript or emulations of it in plug-in cartridges that fit most HP-style laser printers. Cost: roughly \$600 to \$700, list. ■

## HELPFUL HINT: SAVING KEystrokes

In running my typing and word-processing business, I frequently type reports in which long names or terms are repeated 20 or 30 times per document. Here's a way to avoid the drudgery of repeatedly typing phrases like *International Business Machines, Inc.*; it's a wonderful time-saver:

My strategy is to use my word processor's search-and-replace function (most word processors have one). Instead of typing "International Business Machines, Inc." (or whatever) every time it crops up, I type a character like @ that rarely occurs in real text. When I've finished typing the document, I simply have my word processor search for every occurrence of @ and replace it with the appropriate phrase. It's done in seconds.

For documents with more than one repeated finger-twister, you can dream up additional placeholders. Easy-to-type combinations of adjacent characters, like zx or //, that would never come up in copy, work best and save the most time. Shifting and/or reaching for the top row of keys to access the special characters there slows things down a bit.

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Plainview, New York

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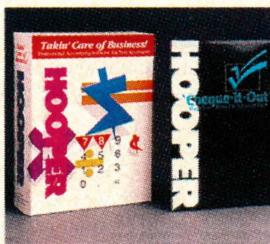
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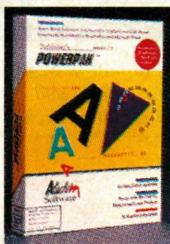
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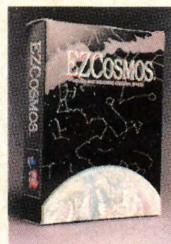
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# PageMaker: Better Than Ever, But Is That Good Enough?

BY STEVE MORGESTERN



Give me half an hour in front of a computer with people who have put together pages in the traditional way—with X-Acto blades, rubber cement, and a T square—and I can have them laying out publications with *PageMaker*. They won't have an expert's finesse, of course, but they'll be able to manage the basics.

## SIMPLE, AND MORE OF IT

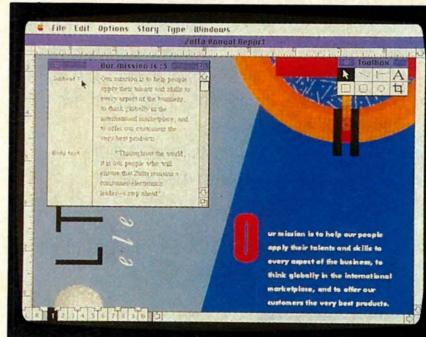
That's really a tribute to the essential simplicity of *PageMaker*. It's a program with a clear conceptual basis: "Let's transfer a mechanical artist's tools to the computer." You cut blocks of type to fit, drag them around your page, and drop them into place. There's even an oversize pasteboard to store scraps of text and illustration, just like the big drafting tables found in old-fashioned commercial art studios. By mimicking the physical world, *PageMaker* became very accessible—and very successful.

Now we have version 4.0 of the undisputed best-seller. I've reviewed the Macintosh version, but as with previous releases of *PageMaker*, the MS-DOS version will be nearly identical, especially running under Windows 3.0. Once again, many of *PageMaker*'s new features were designed to close the feature gap.

## BRING ON THE BIG DOCUMENTS

*PageMaker* used to make it difficult to build book-length publications, with a 128-page-per-document limitation and a lack of large-document tools such as index and table-of-contents generators. *PageMaker* 4.0 radically improves that situation.

The per-document limit has now been boosted to 999 pages. The real story, though, is not humongous single files but the program's newfound ability to link multiple files into one long publication. So I now keep separate chapter files, each of a manageable length, and combine them at



*PageMaker* 4.0's Story Editor, a built-in word processor, lets you work on text quickly and easily. It even includes a good spelling checker.

## PageMaker

Rating: ★ ★ ★

**AT A GLANCE:** Improved handling of typography and document size much welcomed, but page-layout program breaks no new ground.

**DOCUMENTATION:** Always excellent, now better than ever.

**ERROR HANDLING:** Predictable and clean.

**EASE OF USE:** Follows traditional mechanical methods for designing pages, so easier for some than others.

**SUPPORT:** Unlimited and accurate, but you pay for call.

**VERSION REVIEWED:** 4.0

**PRICE:** \$795

**SYSTEM REQUIREMENTS:** 1MB Macintosh (2MB and 68030-or-better microprocessor recommended); hard-disk drive; System 6.0.3 or higher. Also for IBM compatible.

**PUBLISHER:** Aldus Corp., 411 1st Ave. S., Suite 200, Seattle, WA 98014; (206) 622-5500

print time. This would be even better if *PageMaker* let me open more than one file at a time, a feature found in almost every other Mac DTP program.

Dovetailing nicely with *PageMaker*'s new document-management capabilities are a good table-of-contents system and a superb index compiler, both of which accommodate multiple-file publications. In fact, the indexing tool may be the most "gee-whiz" feature in version 4.0. I can readily indicate the page range I want indexed for each entry, insert cross-references, and even

consult a pop-up list of index headings I've already defined to ensure consistency.

Two questions, though: With all this automated power, why do I still have to open each file in my multiple-file publication and manually adjust the starting point for automatic page numbering? Did somebody at Aldus forget to implement the obvious feature—having the program calculate the starting page number based on the last page of the previous file?

## TYPGRAPHY: IMPROVED, BUT . . .

Aldus has eliminated the major shortcomings in its typographic controls with this *PageMaker* release.

Type size and leading can now be set in 0.1-point increments (version 3.0 allowed only 0.5-point settings, which was simply inadequate). In fact, even 0.1 point is not fine enough when trying to adjust a text block to fit a prescribed area (*Quark XPress* is accurate to 0.001 point), but it's good enough for most purposes.

The latest version of *PageMaker* lets me specify type up to 650 points tall (about nine inches); version 3.0 imposed a 128-point ceiling. I can also compress or expand type down to 5 percent and up to 250 percent of its original width on a PostScript printer. Taken together, these options make for some striking display type possibilities.

I can also rotate type within *PageMaker* 4.0, but only at a 90-degree angle. That's good enough for photo credits or labels on an order form, but more flexibility would be useful in many layouts.

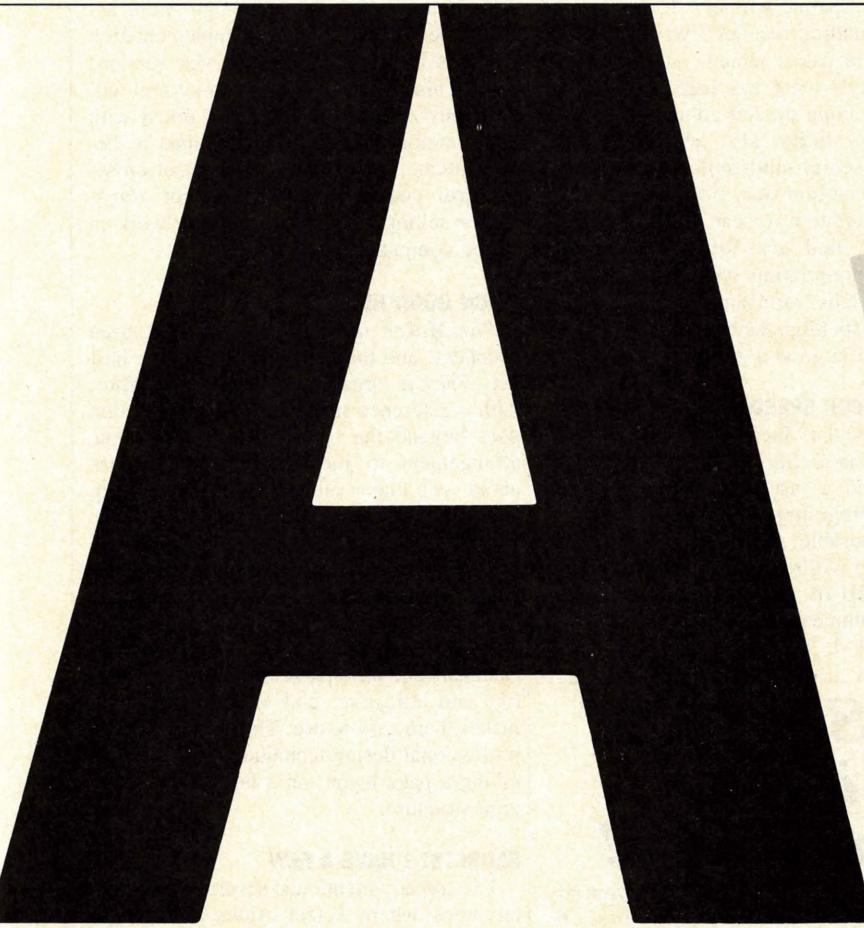
## ANNOYING QUIRKS

Up to now, *PageMaker*'s inability to attach graphic elements to the text with which they belong has frustrated me. For example, say I want to put a block of text in a ruled box. *PageMaker* gives me the tool to draw the box, but then I must manually position the text within it. What happens if I edit the story and the boxed text moves? The box stays put, and I have to move it again myself. And if I add text to the boxed section, I have to manually adjust the size of the box.

*PageMaker* 4.0 addresses the problem—

STEVE MORGESTERN is a contributing editor for HOME-OFFICE COMPUTING.

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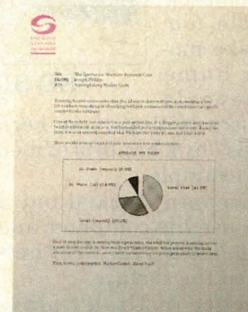


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 **HEWLETT  
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but still doesn't master it—with two new capabilities.

First, I can now attach a rule (a thin line) above or below a paragraph. Where that paragraph goes, the rule follows. That's good. Why won't a box also follow text, though? How about a command to insert rules between columns, instead of making me draw them by hand? And why am I still limited to seven predetermined line thicknesses and nine patterns?

Second, *PageMaker* 4.0 adds *in-line* graphics, which lets me treat an image as if it were part of the text flow. Now I can add a diagram after its appropriate paragraph, and the graphic will follow the paragraph wherever the page layout takes it. However, I can't wrap text around an *in-line* graphic. It must either stretch across the entire column, or the leading for the line containing the *in-line* graphic must be adjusted. What I really want is to reach into the screen and tape those two elements together.

*PageMaker* 4.0 represents a major jump forward in some phases of long-document production. But why must I still chase after bits of type and graphics that don't know enough to go with the flow?

#### BUILT-IN WORD PROCESSING

I've left the Story Editor, one of 4.0's

best new features, for last because it isn't, strictly speaking, a DTP feature at all. If you've ever tried to make text changes directly on your page layouts, you know how slow-moving and tedious that can be. With the Story Editor, I work on text quickly and easily in a separate window. I may not see all the formatting niceties I've applied, but boldface and italics remain, and I can display the style-sheet tag names applied to paragraphs along the left column.

The Story Editor also lets me perform powerful search-and-replace operations through the current story or my entire publication. In addition to searching for specific text, I can find text formats, style-sheet tags, and nonprinting characters (carriage returns and tabs, for example). And the Story Editor's spelling checker is on a par with those found in good word processors.

#### THE NEED FOR SPEED

I reviewed the Macintosh release of *PageMaker* 4.0 on an SE equipped with 2MB of memory and a fast hard drive. With this setup, the program performed sluggishly—it was not unusable, but far from fast. While the program will run on any 1MB Mac with at least 5MB of available hard-disk space, Aldus recommends at least an SE/30 and 2MB of RAM. They're not kidding. People

with less than the recommended Mac configuration are well advised to upgrade if they plan to spend much time in *PageMaker*, or they'll be spending more time there than they bargained for.

At this writing, *PageMaker* 4.0 for Windows is not yet available, though Aldus assures me the features and implementation will closely match those of the Mac version, and documents created on either system will be highly compatible. Having worked with both versions of 3.0, I am inclined to believe them. In fact, the high level of cross-platform compatibility is a major *PageMaker* selling point for those who work in mixed computing environments.

#### MUCH GOOD HELP

*PageMaker* manuals have always been excellent, and the new versions are the best yet. They're organized better than before, with a reference manual, for instance, that goes beyond the typical alphabetical topic arrangement to include extensive articles about such major subject areas as setting up pages. Equally good is the new on-line help, which is clear, concise, and well arranged.

The 25 templates and 10 layout grids included are valuable, timesaving extras. The templates cover a wide variety of practical projects, from employment applications to calendars and newsletters. They're business-like and attractive, and a separate manual makes them easy to use. The grids, a proven professional design technique, save time by giving a page layout on a flexible multicolumn structure.

#### REGRETS? I HAVE A FEW

I've already mentioned several fundamental areas where I feel Aldus could have improved on a very good program. I'm not talking about highly technical issues here: I just want to lay down a line of type at a 45-degree angle for a label and group related elements so I can move them all at once instead of piecemeal.

What I wanted most from the latest version of *PageMaker* was some way to specify sizing and positioning of page elements numerically. Sure I can get the job done using the on-screen rulers and guidelines, but it's often easier to enter numbers in a dialog box. That's especially true if I'm trying to precisely align several separate page elements or want to nudge a text block or graphic over by a point or two. So far, Aldus stubbornly refuses to provide any support for that nonvisual way of working.

Still, I am pleased with the many enhancements Aldus has added to its flagship program. But I'm not excited, and that's too bad. *PageMaker* 4.0 is a solid, capable performer, but it breaks no new ground. Maybe when you're the market leader you don't have to be innovative. ■

## How To Get Your Share Of The Riches That Lie Hidden in Your Computer!

(Battle Ground, WA)

Using your home computer can be the key to financial freedom. The question is, how to start with little investment, part time.

Recently, this reporter heard about Ed Simpson, a 40 year old "computer maverick." Ed has just spilled the beans on 33 very profitable, *low cost* ways to make money with your home computer. He reveals priceless trade secrets that have been kept "under wraps" by a handful of men and women. For example...

- An Illinois fireman worked out a unique way to use his computer and now *nets \$180,000 a year*. Yet he's barely scratched the surface.
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- An 18-year old student came up with this smart idea and *made \$200,000!* A California man applied the same



ED SIMPSON

principle and earned *\$150,000 in just 6 months*. You can do the same thing.

- And, like this Florida lady, you can save a computer hardware user hundreds of dollars and earn as much as *\$100,000 a year*. Not bad for "after hours" work.

You'll marvel at the many ways Ed has detailed to help you begin making surprising profits with your home computer.

Do you want to learn how to escape the "payday-to-payday" rat race? Ed Simpson invites readers of this column to preview his amazing collection of easy home computer business opportunities. C

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# The Best Ways to Build An Error-Free Database

BY DAVID HALLERMAN

## With the Right Software Features, It's Easy to Enter Exact Data

When you need to find and rearrange information, paper records pale compared with a computerized database. Still, if you're like most people, you put off turning your paper files into disk-based data because it takes a lot of time to enter the data, both at the start and as an ongoing project.

Even if you get over that hurdle, there's still the problem of inaccuracy. When you have a lot of information to type in, there's a lot of room for errors—misspellings and typos. And what good is your database if its information is incorrect? Beyond the obvious problems that result from common errors like entering the wrong address, other data inaccuracies—wrong dates that make you miss an overdue invoice, for example—can cause you to lose money. Spelling errors can cause embarrassment. And even inconsistencies that are not entirely inaccurate, such as listing a company name four different ways, can cause errors down the line when you sort or select your data.

Of course, you—or your paid assistant—can enter the data slowly and surely, but such painstaking procedures devour time. That's why you should take a look at database software that actively helps you enter the data, making the whole process easier and faster and the information more likely to be correct.

LET THE SOFTWARE DO THE WORK

How can software help you type in info? As a prime example, let's look at *Panorama* from ProVUE Development ([714] 892-8199). This Macintosh program raises *data validation*, as it's frequently called, to a high art. Thankfully, *Panorama* is not alone in its validation capabilities; many similar features are found in most Mac and MS-DOS database programs.

Data validation refers to a set of features that, collectively,

UPS = United Parcel FE = Federal Express USM = U.S. Mail

First	Last Name	Address	City	State	Zip	Ship Via	Phone
Bob	Muscolo	624 Fountain Street	Costa Mesa	CA	92604	UPS	(714) 964
Jim	Reynolds	1183 Brookhurst	Costa Mesa	CA	92608	FE	(714) 894
Fred	Claire	341 Pinecrest	Orange	CA	92450	FE	(714) 195
Tim	Riley	459 N. Bull	Seal Beach	CA	93105	USM	(213) 784
Mike	Johnson	391 E. Raymond	Fullerton	CA	92625	UPS	(714) 984
Russ	Greene	1099 E. Dorothy Lane	Fullerton	CA	92625	UPS	(714) 865
Lisa	Donovan	885 Commonwealth	Anaheim	CA	92628	USM	(714) 846
John	Cord	2039 Beach Blvd	Stanton	CA	92642	FE	(714) 894
Mary	Matthews	891 E. Graham	Huntington Beach	CA	92649	FE	(714) 525
Cheri	Allen	399 S. Batavia	Orange	CA	92634	UPS	(714) 462
Kevin	Mitchell	212 E. Dove Circle	Tustin	CA	92635	UPS	(714) 549
Paul	Kennedy	3143 Polk	San Francisco	CA	98457	USM	(415) 894
Joy	Scott	7780 N. Harbor	Newport Beach	CA	92640	FE	(714) 894
Andy	Dudas	32149 N. Michigan Ave	Chicago	IL	60678	UPS	(312) 857
Scott	Lutz	448 Longview	Fullerton	CA	92631	USM	(714) 986
Doug	Lewis	36 E. 30th	New York	NY	10552	FE	(212) 975
Mike	Corning	53 Deerhaven	Mahwah	NJ	07631	UPS	(201) 877
Sue	Gibson	8885 Swallow	Sunset Beach	CA	92648	UPS	(714) 985

(1) examines data as you enter it to make certain it's the right type for that field (either text or numbers, for instance);

**(2)** formats data automatically as you enter it (digits as dollars, say):

**(3)** limits entered data (for example, only items from a predefined list); and

(4) prompts you with suggested, already-typed-in entries (especially useful in fields with repeated data, such as cities in an address list).

You choose the best data-validation features for each field when designing a database. Many programs, such as *Panorama*, also let you change validation parameters after data has been entered.

#### **CHECKS DATA AS YOU GO**

I'm a careful typist, but I still treasure any timesaving touch when it comes to entering data. The following set of validation features makes typing easier by doing some of the formatting for me.

- The most basic data-validation feature, found in nearly all database programs, checks to see if an entry is text or numbers. This dual division works well if your field is all numbers—money, say—or all text, such as a name. The validation eliminates such common errors as typing a lowercase *l* instead of the number 1 or an uppercase *O* instead of a zero.
- If your database program holds date data as either text or numbers, though, you can't calculate with those dates. However, dates

Line #2,  
Panorama's  
"value bar" for  
the *Ship Via* field,  
limits that field's  
entries to one of  
three choices—  
which reduces  
chances for  
errors. Line #1  
is the program's  
prompt feature  
that reminds the  
typist what the  
three-letter  
shipping codes  
mean.

are another *Panorama* data type, a special kind of field that, like numeric data, can be used in calculations (days since invoice date, for example, to figure aging).

- I appreciate how *Panorama* automatically adjusts capitalization as data gets entered. For instance, I set the First Name, Last Name, and City fields of my contact list to be word caps, meaning each word begins with a capital letter even if I forget to type it that way. Of course, this speeds up data entry, because I no longer bother to type capital letters, and it increases data consistency as well.
- Capital letters mean nothing to Phone or Date or Total Due fields, but automatic formatting means a lot. When designing a *Panorama* database, I set up my numeric fields so that all I enter are the digits themselves—a phone number's parentheses, space, and hyphen, for instance, are inserted automatically. *Panorama* will automatically include text labels, such as *lb* for an item's weight on an invoice, yet leave the field as numeric so that I can still calculate with its contents.
- *Panorama* handles money simply and easily. First, I designate the field's data type as numeric. Then I set the field's digit value (a *Panorama* term) as money. The program automatically inserts both dollar sign and decimal point as I enter the figures.
- When I work with nonfinancial numbers, I can set their digit values anywhere from no decimal place up to four digits after the decimal; floating point numbers (such as

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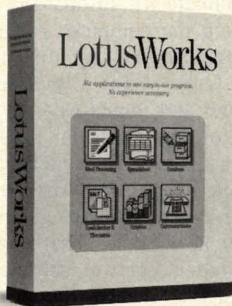
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extremely large or small numbers found in scientific data) are another option. A Customer I.D. Number field, for instance, would probably be formatted with no decimal places.

### SUGGESTS DATA TO ENTER

Limiting the data that can be typed into a field is another way database programs save data-entry time while increasing accuracy.

- Using *Panorama*'s predefined data values feature, I can set up any field so that its entries must come from a list. For instance, a Credit Terms field might allow only three selections: Net30, COD, or PrePay. By giving the person entering data just those three choices in an on-screen checklist that *Panorama* calls a value bar (see figure), the possibilities for error are narrowed.

- Sometimes I want to limit data to a range of characters instead of values. *Panorama*'s range choices include alphabetic (letters and spaces), numeric (the digits 0 through 9, periods, minus signs, and the letter E for scientific notation), alphanumeric (both mixed), and custom. A custom range might be digits only, useful for zip codes. Another custom range, this one for phone numbers, limits characters to digits, spaces, parentheses, and dashes.

- When I consistently enter the same data into a field, *Panorama*'s default feature saves me typing time. One day I was entering several new names into my contact list, all from the same town. Instead of entering that town's name in the City field each time, I set its name as the field's default. Then, as I entered new data, the town's name was already typed in.

- *Panorama* offers several options for default data entries. For instance, if I need a numeric field to increase by one with each new record, such as an Invoice Number or Check Number field, *Panorama* will automatically type in the correct number for each new record. Should I need an incremental default other than one, or even a decremental value, *Panorama* can also help.

- Entering dates is another showcase for *Panorama*'s default feature. If I set any Date field with the default value *today*, the program automatically inserts the current date (read from the computer's clock). Invoice dates, for instance, are almost always today's date. Once again, a *Panorama* feature saves time and increases accuracy.

- One type of field I use in many kinds of databases is a Code field, which helps me pull out different groups of data from the whole. For instance, my contact list holds info on everyone I know. That's why I've set up a four-letter code for each individual: PERS (personal), WORK (work-related), FAML (family), SERV (service numbers such as my doctor), and OTHR (other). This method works well when the person who

designed the codes enters the data, but it's harder for others to remember. That's where *Panorama*'s prompt feature—which suggests what data should be entered in the field—comes in handy. Combined with the value bar mentioned earlier (see figure), the prompt feature makes it easy for even temporary employees to enter the right information into a database.

### ENTERS DATA FOR YOU

Nearly every *Panorama* feature discussed above can be found in some form, sometimes under other names, in other database programs. For instance, what *FileMaker* calls "auto-enter a new serial number" does the same thing as *Panorama*'s incrementing default feature.

However, Clairvoyance, *Panorama*'s pièce de résistance, is unique. Because Clairvoyance is harder to understand than most data-validation features, I'll go into a detailed example. Let's say the City field in my contact list already contains five names: Baltimore, Boston, Chicago, New York, and Newark. I enter data on a new client from the Windy City; when I come to the City field, I start by typing a C, of course. *Panorama* instantly scans the field's existing entries, finds only one name that starts with C, and suggests Chicago as the computer beeps to get my attention. I press Tab to accept the suggestion and move on to the next field. However, if my new client lived in the Queen City instead, I would just continue to type in Cincinnati. Then, if my next new client comes from Beantown, Clairvoyance won't suggest a name until I enter the first o in Boston, because the initial B alone might be Baltimore. And should I have a third new client, this one from the Big Apple, the program won't suggest a name until I type the space after New—otherwise it could have been Newark.

The Clairvoyance feature is the fastest way to enter repetitive data I've ever seen, and it becomes more valuable as my database contains more entries. My data becomes more consistent, as well, with the same entries spelled identically every time.

### THE BEST WAY

Knowing a good, careful typist who's comfortable with computers and knows how to spell is still important when it comes to entering data accurately. However, with the help of the right software, the best ways to enter data can come more easily.

With its wealth of data-validation features, *Panorama* is my database program of choice. If you're looking for the best database for your work, you won't go wrong in looking for many of the same features. Because anything that makes entering exact data easier makes it more likely that you'll enter it. ■

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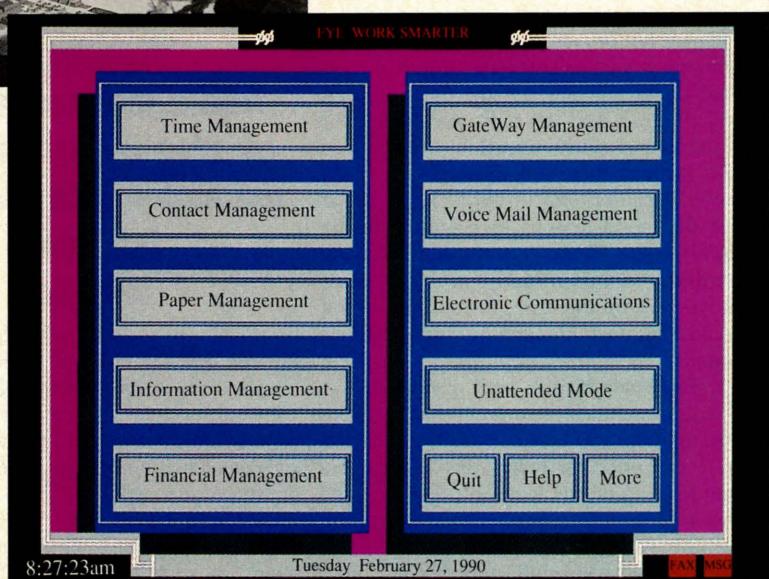
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# The Five Best Reasons To Go On-Line

BY ALFRED GLOSSBRENNER



Learning to go on-line is a hassle. This is not something the on-line industry is particularly eager to have you know. But it is the truth. By the time you buy a modem, have it cabled to your computer's serial port, load your communications software, and learn enough about your equipment to set your "comm" parameters and dial the phone, you may seriously question whether it's worthwhile.

It may not be. On-line computer communications is not for everyone. But then, personal computers are not for everyone, either. A great deal depends on whether the on-line world offers something to help you work faster, better, and smarter.

With those criteria in mind, I can list at least five good reasons to put up with the initially steep learning curve demanded by computer communications. And once you've gone on-line three or four times, you should find that communications becomes routine.

**1. Electronic Mail.** E-mail reaches its target within minutes (assuming your recipient subscribes to the same e-mail service as you), at a price far below that of an overnight letter. You can leave a longer message than you would on a telephone-answering machine; you can also leave a more personal message than you might on a fax machine, which is often shared by several people. Messages you receive can be directly incorporated into computer files; a fax message has to be retyped.

An e-mail message will almost certainly cost more than a 25-cent stamp. But as business people know, postage is only one cost component in sending a conventional letter. At some firms, stationery and clerical

labor can bring the total cost for an average letter to \$3 or \$4.

**2. Consultants at Your Fingertips.** Special-interest groups (SIGs), or forums, bring together people from all over the country—indeed, all over the world—to share knowledge. Available on commercial systems such as CompuServe, GEnie, Prodigy, and bulletin boards, these message exchanges are fonts of information where you can post and read messages on specific topics.

For example, if you have a question about making your Macintosh work with a particu-

through a fax machine.

**4. Instantly Available Software.** Most business people buy their major applications programs when they buy their computer. That can be very convenient, particularly for novice users. But whether you are a rank amateur or a seasoned pro, I guarantee that someday you will ask, "Is there a program that will do thus and so?"

At that point, you might want to look on-line for a shareware program that fills the bill. (You can sample a shareware program for free, and pay only if you want to continue using it.) And as much as I love bulletin-board systems (BBSs), the most efficient approach for a business person is to look on a system like GEnie, CompuServe, or Delphi. You don't have to worry about the busy signals that afflict many popular software-filled BBSs, and the selection of programs is fantastic.

**5. Information Power.** Finally, a modem gives you access to industrial-strength on-line information. There are nearly 5,000 on-line databases offering in-depth coverage of any topic you can name. Almost all major publications—whether popular (*Time*, *Newsweek*, *Fortune*, *People*) or technical (*Chemical Abstracts*, *New England Journal of Medicine*, *Jane's Defense Weekly*)—can be searched on-line. In some cases, you get a fact-packed abstract and can order the article or retrieve it at a library. In other cases, you can download the full-text article. All that's missing are the photographs and charts.

## Add a modem to your electronic arsenal and expand your computing horizons.

lar printer, or if you need help with *WordPerfect*, you can visit one of the many Macintosh or word-processing SIGs and post your question for all members to see. It's certain that some expert somewhere will answer your query with the information, tips, or advice you seek.

Understandably, there are more conferences and SIGs devoted to particular computers or software products than anything else. But topics like coin and stamp collecting, working from home, cooking, physical disabilities, human sexuality, investing, and medical, literary, or legal matters are also covered.

**3. Fax and Telex Transmission Facilities.** Virtually all commercial on-line systems can transmit text messages from your computer to facsimile machines or telex terminals anywhere in the world. (Receiving fax and telex messages is a bit trickier, although it can be done.) For those who occasionally need to get a text message to a client's fax machine or send a telex (usually overseas), the ability to transmit directly from a personal computer is a major advantage. In addition, the fax that is received will be sharper than one you print out and send

## GET A LEG UP ON THE COMPETITION

Communications has traditionally taken a backseat to word-processing, spreadsheet, and database-management applications. The inconvenience of learning to go on-line is largely responsible. But as you can see, there are at least five good reasons to put up with the initial hassle.

There is a sixth reason as well. The fact that relatively few people are using on-line power means that anyone who knows how to milk a modem for all it's worth will automatically have a leg up on the competition. That alone may be reason enough to learn to go on-line. ■

ALFRED GLOSSBRENNER is the author of *The Complete Handbook of Personal Computer Communications—3rd Edition*, *How to Look It Up Online*, *The Master Guide to FREE Software for IBM and Compatible Computers*, *The Master Guide to CompuServe*, *Glossbrenner's Complete Hard Disk Handbook*, *the forthcoming*, *Glossbrenner's Master Guide to GEnie*, and many other books.

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# Fight for Your Business Tax Deductions

BY MARK E. BATTERSBY

## If Your Fledgling Enterprise Isn't Profitable Yet, Here's How to Keep What's Legally Yours

Periodically, the local offices of the Internal Revenue Service crack down on so-called hobby/businesses by conducting more and lengthier audits. The number of people who refuse to argue their cases after IRS examiners deny their business deductions—combined with those individuals who don't bother to claim some or all of their business deductions—is staggering. It doesn't have to be that way, though. Even if your business makes little or no profit at this point, you can fight the IRS should it deny your deductions by saying that your activity is not really a business but a hobby.

### HOW A BUSINESS DIFFERS FROM A HOBBY

Admittedly, there can be a very thin line between a hobby and a business, at least for income-tax purposes. Although not defined by tax law, in the eyes of the IRS a hobby does not necessarily mean an activity like stamp collecting, but merely the absence of an activity carried on for a livelihood or for profit.

When it comes to tax time, the expenses of a hobby are just that, expenses. If your hobby earns money, you can claim tax deductions for the expenses of that activity; but IRS tax rules limit those deductions to the amount of income your hobby produces.

On the other hand, a business, whether part- or full-time, entitles the owner to claim tax deductions even for related expenses that exceed the income produced. In essence, the tax losses generated by a home-office activity operated as a business produce tax write-offs similar to tax shelters, which accounts for the attention paid them by the ever-vigilant IRS.

Pennsylvania-based writer MARK E. BATTERSBY is also a financial and tax consultant.



### CONVINCING THE IRS

Suppose that your own full- or part-time home-based business activity is operated in what you believe is a businesslike manner, and you have high expectations that it will eventually produce a profit. If, as many activities do, that business produces losses for several years, you may have a difficult time convincing an IRS auditor that it's truly a business. In fact, even if the activity shows an occasional small profit, a business purpose can still be difficult to establish.

An IRS agent might give you the opportunity to prove that your activity is a business by showing profits in later years. In exchange for agreeing to leave your entire current tax return open beyond the normal statute of limitations period—which is typically three years from the date the return is due or filed, or the taxes are paid, whichever is later—the agent will let you prove a business exists by showing profits in three out of five consecutive tax years (five out of seven in the case of breeding, training, showing, or raising horses).

Fortunately, you need not waive the statute of limitations on your entire return in order to qualify your business with three-of-five profitable years. Instead, you can file Form 5213, Election to Postpone Determination That Activity Is for Profit. This form should be used only if the IRS asks for it during the course of an audit. Consider it carefully even then, because after a four-year window in which your business tax deductions won't be challenged by the IRS, they will undoubtedly audit your return; so

be ready to prove a profit objective.

However, filing Form 5213 along with your tax return for a home-based business is just asking for trouble. My rule number one says never volunteer any information unless asked. After all, less than 2 percent of all individual income-tax returns filed with the IRS are ever audited.

Should your home-based activity be challenged by the IRS, you may be in for a fight. The real problem is one of ignorance—on the part of both the taxpayer and the IRS examiner. Few IRS auditors are familiar with home-based activities, so their first inclination is to label an activity that shows no profits a hobby. Even worse, too many people are afraid of the IRS and ignore their rights, giving in at the first sign of disagreement.

### NINE WAYS THE IRS JUDGES A BUSINESS

Surprisingly, many IRS examiners—and quite a few tax professionals—are not aware of the Internal Revenue Service's own regulation, Reg. #1.183-2(b). Quite simply, this regulation spells out just how a hobby differs from a business and suggests guidelines for IRS examiners to use in evaluating each activity on its own merits.

According to the regulation, the IRS, when determining whether an activity is a business, must use objective standards, taking into account all facts and circumstances in each situation.

Your business is no longer required to show a reasonable expectation of profit under this regulation, but you must run your home-based activity with the objective of making a profit. For example, the expectation of profit may be small where the anticipated profit is large (such as when a taxpayer invests in a "wildcat" oil well venture), but it must exist.

As part of Reg. #1.183-2(b), the IRS lists nine factors that auditors consider when determining whether or not there is a profit objective in any given activity and, therefore, whether the activity is a business or a hobby.

**1. The manner in which the taxpayer carries on the activity.** This is extremely important. According to the IRS, maintaining complete and accurate books and records indicates that your activity is being carried

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on for a profit. A change in the method of operations in order to improve the profitability of your home-based activity also indicates a profit motive to the IRS. For example, a consultant might build profits by hiring an employee to take care of Mickey Mouse chores.

**2. The expertise of the taxpayer—or his or her advisers.** The IRS recognizes a profit objective if you prepare for and carry out your home-based activity by learning accepted business practices and procuring professional advice. Unless, of course, you fail to follow that advice, in which case a lack of profit objective is usually apparent.

**3. The time and effort expended by the taxpayer in carrying on the activity.** Anyone who devotes a substantial amount of time and effort to carrying on any activity usually demonstrates a profit objective. This is particularly true when the activity does not have significant personal or recreational aspects. If you've withdrawn from another occupation to operate your home-based activity, this, too, carries a lot of weight toward proving your intent to derive a profit. Fortunately, although you may personally devote only a limited amount of time to an endeavor, a profit objective may still be found where competent and qualified persons are employed to carry on the activity.

**4. The expectation that assets may appreciate in value.** Profit, under this heading, includes any appreciation in value of the assets used in your activity. Thus, a profit objective can exist where an overall profit would result only when the gain from the disposal of the asset is added to the other income from the activity, even though a profit is not actually derived from current operations. For instance, certain businesses may hold inventory that appreciates, such as antiques, fine wines, or rare automobiles.

**5. The success of a taxpayer in carrying on other similar or even dissimilar activities.** A key factor is whether you have engaged in similar activities in the past and converted these from unprofitable to profitable enterprises. This can indicate a profit objective in your current endeavor.

**6. The overall history of profit and loss of the activity.** Losses during any activity's start-up are not necessarily an indication that the activity is a hobby. However, continued losses beyond the period customarily necessary to make an operation profitable are an indication of a hobby to the IRS. While the customary period varies from business to business, losses caused by unforeseen circumstances such as fire, theft, or depressed market conditions do not indicate that the activity is a hobby.

**7. The amount of occasional profit.** The amount of profits in relation to the amount of losses incurred, the relationship of such profits to your overall investment, and the

value of the assets used in the activity are also factors considered. An occasional small profit for an activity that generates large losses, or an activity in which you have a large investment, is not sufficient to establish a profit objective. However, an occasional but substantial profit usually indicates that your activity is not a hobby. Someone who spends \$25,000 outfitting a home office used in a part-time venture that produces only a few thousand dollars profit each year is kidding only himself about having a business. In contrast, a professional, such as a doctor, who spends a similar amount outfitting a home office will probably generate sufficient income to warrant that investment—even if it's part-time.

**8. The financial status of the taxpayer.** To the IRS, the lack of other sources of income indicates that your activity is engaged in for profit, and is therefore a business with legitimate deductions.

**9. The elements of personal pleasure or recreation.** This profit-objective factor operates differently than many people believe. Although the fact that you enjoy or derive personal satisfaction from an activity does not foreclose a finding of a profit objective, the presence of a pleasure element suggests to the IRS that your activity is a hobby. While it can be difficult to convince an IRS auditor about your business intent, the use of a daily log or diary is often useful in demonstrating the negative aspects of an apparently pleasurable or recreational activity. Even a deskbound IRS examiner can be presented with another view of a home-based business when given the opportunity to read about emptying the trash, repainting the office, hauling the computer off for repairs, and so forth.

## NO SINGLE FACTOR COUNTS ALONE

However, when all is said and done, no one factor proves the existence of a business. The IRS, as it states, will take into account all facts and circumstances of each case on an individual basis. But, without profits, it's up to you, using these nine factors, to convince the IRS that a business exists. However, if your activity shows a profit (remember the three-out-of-five-year test), the burden of proving that it's a hobby rests with the IRS. Unfortunately, like those individuals who fail to take tax advantage of their home-office-related activities, many IRS auditors aren't aware of all of the guidelines.

Mere fear of an IRS audit is no excuse for ignoring the legitimate tax deductions generated by a home-based business. If you are questioned by the IRS at some later date and your deductions are legitimate, proving the existence of a business should be a snap—at least if the IRS's own regulations are followed. ■

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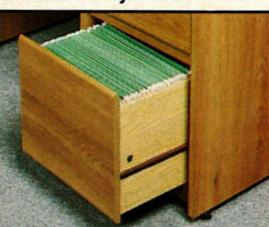
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# Improve Your Finances With the Right Accountant

BY CHARLOTTE PIERCE

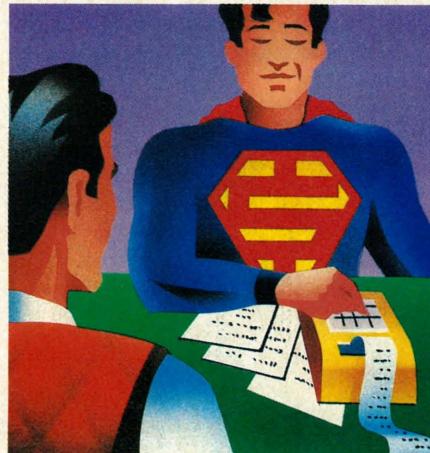
## To Find a Good CPA, Seek Recommendations And Ask Smart Questions

When he began his search for a CPA to handle his business accounts, corporate-communications consultant Joe Quackenbush started to feel like Goldilocks in the house of the three bears. It was harder than he thought it would be to find an accountant who was just right. "It's a bit bewildering out there," he complained, "so many accounting firms, all telling you they can handle your books. But as I was just starting Luna Communications, I was determined to find a CPA whose language I could comprehend and who could understand my business style and goals."

After getting recommendations from clients and friends, Quackenbush's first stop was a downtown Boston accounting firm that occupies three floors of a gleaming high rise. "I had a bad feeling just walking in past those rows of cubicles, and that was before one of their operatives came out, firing questions about inventory, stock, capital gains, employee withholding, and other mind-boggling things."

The second accounting firm Quackenbush looked into was too small. "The guy worked alone, full-time, for about 30 individual clients," says Quackenbush. "Before I got a chance to tell much of my story, he started telling me what I should do with my business and said that what I needed was someone to do basic tax returns. That was not at all what I needed, and as our meeting progressed, I got the feeling he wouldn't be able to help me plan financial strategies or grow with my business over the next five or six years. He told me a lot of bookkeeping details I already knew."

The third accountant he interviewed tuned right in to his needs. "I felt very comfortable talking with him," explains Quackenbush. "He employed about 30 people who



specialized in various types and phases of businesses. This accountant could understand my current situation as well as my goals. He gave me some concrete tips on handling company cars, my personal salary, saving on taxes, and managing my money from the outset. He really listened to me and was clear about his fees. A perfect fit."

### GATHER RECOMMENDATIONS

As Quackenbush discovered, the best and easiest way to build a list of potential accountants is to ask friends, members of professional peer groups, and other small-business owners for referrals.

Your attorney or banker might also be able to give you recommendations, says John Graves, director of technical services for the American Institute of Certified Public Accountants (AICPA). If you're new to an area, you may be able to get a list of reputable CPAs from your state society of CPAs.

By hiring a CPA, you have the assurance that your accountant is licensed by his state. To achieve certification, a CPA must have earned a college degree and passed a rigorous two-and-a-half day, nationwide CPA examination. In addition, he or she must take continuing-education courses and adhere to a strict code of ethics in order to retain his or her license.

You will spend less time going through the Goldilocks process if you zero in on accountants who specialize in your size and, to some extent, your type of business, says

John Tyler, principal partner of accounting firm John A. Tyler Associates in Cambridge, Massachusetts. With a staff of about 12, Tyler and his partners serve about 400 clients, from individuals and sole proprietors to small and midsize corporations. "It's true that many large accounting firms will take on sole proprietorships and start-ups, but usually only if they get a good sense the business is going to grow rapidly," Tyler comments. "Many home-based business owners don't want or plan to grow that fast."

Both Graves and Tyler admit that it is beneficial, but not crucial, to find a CPA with experience in your type of business. For example, if you are a housing contractor, a CPA with a number of clients in the building industry will understand your needs more readily. "Some firms specialize in certain fields, such as health services, where there are special regulations and needs, but general accounting principles apply to all types of businesses," Tyler notes. "An experienced accountant should be able to handle the books of a boat builder as easily as those of a freelance writer."

### ASK QUESTIONS

Let's say you have three or four recommendations from friends and colleagues for CPAs. The next step is the initial interview. What should you ask? What responses should dissuade you? How should you decide to go on to step three, the personal interview?

On the phone or during the first interview, you will begin to get a sense of whether the accountant will be compatible with you. "The relationship has to be a fit of attitude as well as competence," says Graves. "If you're an aggressive entrepreneur and you sense that the CPA is a conservative, corporate person, you might want to find someone more suited to your style."

When you talk to an accountant, ask the following questions:

1. What are your qualifications? Make sure the accountant is a CPA. Says Graves: "No CPA should be reluctant to offer references or proof of credentials, or be offended if you ask for either."

2. How long have you been in business?

CHARLOTTE PIERCE is a business and technology writer who works from a home office in Arlington, Massachusetts. She recently retained a CPA specializing in small businesses.

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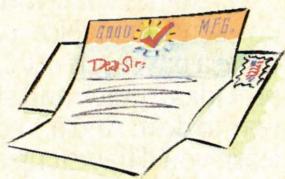
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Every accountant has to start somewhere, but it's best to find a CPA who has a few years of experience.

**3.** Can you handle more business? Even at busy tax times, you should expect access to your accountant; that's what you pay for. If the firm is clogged with clients, the quality of service you receive may be compromised.

**4.** Do you have many clients who run home-based businesses? The accountant should be familiar with the specific tax and financial issues involved in running a home-based business. Ask for references from clients who work from home.

**5.** What will your services cost? There is no industry minimum or standard, and fees vary according to the CPA's experience, the cost of doing business in your area, and the level of service you request. The accountant should be able to give you an estimate after talking with you and reviewing your financial records and past tax returns.

**6.** What should I bring to the meeting? The CPA will likely ask you to bring the following: your past three years of business reports and corporate and personal tax returns; records of retirement plans and other investments; your business and/or financial plan; and an outline of the types of service you need.

**7.** Are the accounting services going to be performed at my place of business or the accountant's? A good accountant will make periodic visits to your place of business to get an overall feel for your company's operations.

## MAKE IT EASY ON YOURSELF

If you want to write out as small a check as possible, you should computerize your bookkeeping operations—and keep the books yourself. Or else you should contract the services of a bookkeeper, who will cost you substantially less than an accountant. "Don't pay a CPA to balance your books, especially if you are computerized," says Tyler. "Most accountants charge their normal accounting rates for straight bookkeeping, primarily because we'd rather concentrate on what we do best, advisory services and tax preparation for our clients. Still, we do have clients who resist doing their own bookkeeping and bring us the shoe box every month. For a small, one-to-three-person business, data entry and posting should take about four hours per week."

Whether you keep your books yourself or hire a freelance bookkeeper to come to your office, putting your books on a computer can make your relationship with your accountant a lot easier and more productive. Your accountant will be able to spend less time on paperwork and more energy on the creative aspects of improving your business and personal finances. ■

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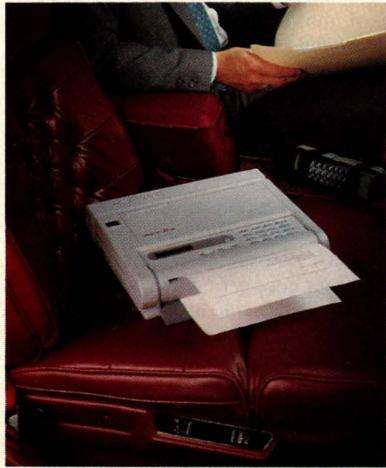
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# Just Say No To Distractions

BY PAUL AND SARAH EDWARDS



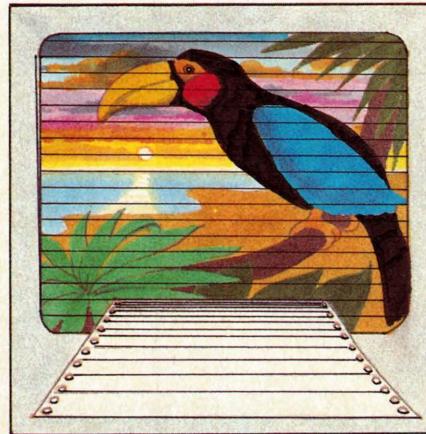
Freedom and flexibility are two of the best benefits of working from home, but they can cause the most common problems as well. Getting started and then sticking to business can be a feat when you're faced with such lures as the morning paper and unread magazines, beckoning yard work and housework, and favorite hobbies and pastimes. There are also soap operas, movies, and 24-hour sports on television, and, of course, friends, neighbors, and relatives who want your time. If you encounter any of these distractions, here are tips for getting to work.

**1. Maintain a regular work schedule.** Following a regular schedule will help you get started and keep focused throughout the day. It will also help prevent interruptions from family, friends, and neighbors—and encourage clients to keep you busy.

Of course, rejecting a nine-to-five schedule may be one of the reasons you started working from home in the first place. So keep in mind that your schedule need not be a customary one. You can work any time of the day or night that your work allows. A schedule need not be rigid; you can modify it as needed while still working regularly.

**2. Use rituals to begin work.** Even though many people have established a regular schedule, they still find they need to prod themselves to get started at their chosen time. The best way to do that is to pick a pleasurable or easy task—and do it first every day. For example, if you work on the West Coast, you can start the day by calling people in other time zones while the discounted long-distance rates are in effect or before people break for lunch. If you see clients, you can schedule your first appointment when you want to begin work. You can also start work when you hear the closing music of a morning news show, watch children leave for school or a spouse for work, or after exercise.

PAUL AND SARAH EDWARDS are authors of *Working from Home* (Jeremy P. Tarcher) and system operators of the *Working from Home Forum* on CompuServe (GO WORK). They also cohost the "Home Office Show" on Business Radio Network on Sunday nights.



## Sticking to business can be a feat when you're faced with such lures as magazines, housework, and hobbies.

**3. Question yourself.** Ask yourself, At the end of the day, what do I hope to have accomplished? What tasks am I most concerned about getting done? What needs to be done next? What will happen if I don't get this done today? Or begin by reviewing where you left off the day before. An author once told us that his secret for getting right to work each day was to stop writing in midsentence the night before. Then he always knew where to start.

**4. Set a deadline.** Harvey MacKay, author of the best-seller, *How to Swim with the Sharks Without Being Eaten Alive*, says, "A goal is a dream with a deadline." Having a set date or time by which something must be complete helps you focus. We find this to be true even if the deadline is arbitrary. Once we have a deadline in mind, it's amazing how many more things we get done in a short period. The deadline seems to put everything in perspective; even things that aren't related to the deadline get done more efficiently.

**5. Bribe yourself.** Corporate office workers are often offered work incentives, so why not create your own perks? Reward yourself for completing difficult tasks. For example, promise yourself, If I get such-and-such done today, I'll go to the movies tonight. When I finish this project, we'll take a weekend trip. When I get done with this, I'll take the rest of the day off. Or, We'll use the check that comes in on this next project for the expansion board or the scanner we want. Be sure to honor your promises—broken promises to yourself or others don't provide much incentive the next time around.

**6. Use positive aphorisms.** Reminding yourself of simple aphorisms like "The early bird gets the worm" or "Today is the first day of the rest of my life," or "The sooner I start, the sooner I'll finish," can help you work more productively. Psychologist Shad Helmstetter, author of *What to Say When You Talk to Yourself*, says affirmations can be helpful as well. An affirmation is what he calls a positive statement you repeat to help yourself achieve a goal. For example, to help yourself get to work and stick to business, you might say to yourself, I look forward to accomplishing great things today, or, Every day I become more productive and more efficient.

**7. Pretend you're away at the office.** If you find yourself interrupted by household distractions, keep in mind that if you were at a corporate office you wouldn't even be aware of many things that might distract you. They would be out of sight and therefore out of mind. So put a door on your office and pretend you are away from home. When interruptions occur, ask yourself how you would handle them if you worked away from home. Then handle them that way.

Or try this technique: When home-based publicist Kim Freilich-Dower becomes distracted by her messy house, she stops working, sets a timer for 10 minutes and rushes to get as much housework done as she can before the timer goes off. When it rings, she goes back to work with her mind at ease. She says she's amazed at how much she can do in 10 minutes if racing to beat the clock.

With a little ingenuity, you can get your work done while still enjoying the freedom and flexibility of working from home. ■

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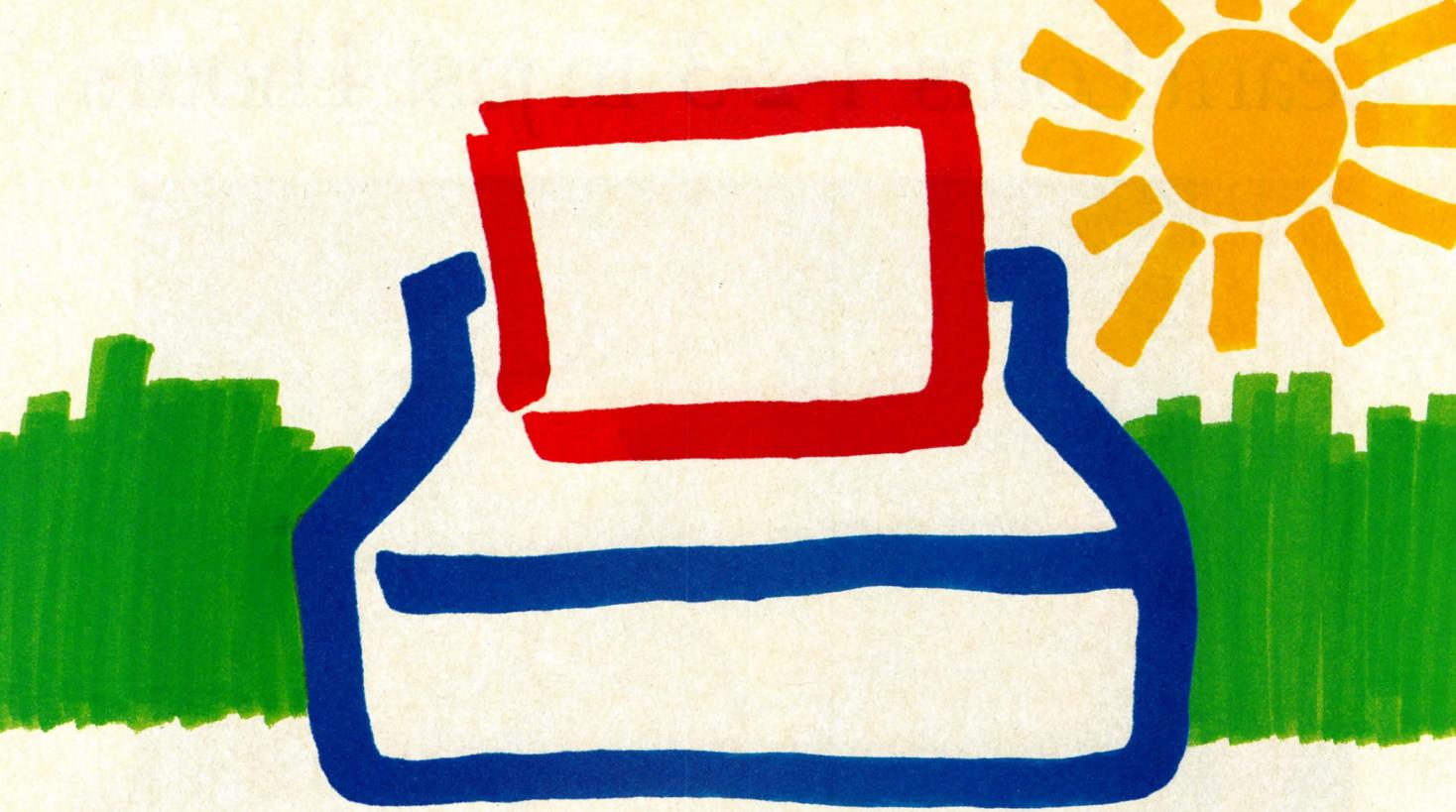
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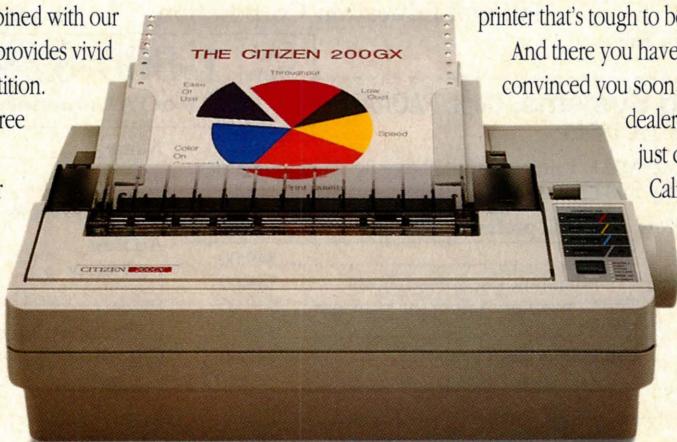
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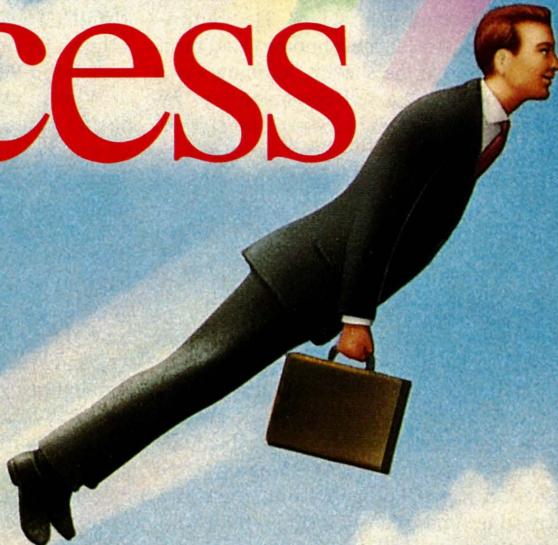
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# Fired! Into Success



BY RONNIE GUNNERSON

*In today's tumultuous business climate, more than two million people are displaced from their jobs every year. For many of these corporate castoffs, the shock of losing a job provides the impetus to start a business. Here are stories about several people who have prospered on their own—and tips on how you can prepare to change your life.*

In one swift moment, an entire portion of my life ceased to exist, leaving a vacuum where I had habits, routines, and support systems. No more corporate coffee, no more steady flow of job-related junk mail. Suddenly, no more company summer party—suddenly, no more company."

Laid off from his job as public-relations manager of Cambridge Computer Company after six years with the firm, Daniel P. Dern was angry, anxious—and philosophical. "I had just enough margin to keep me going, and I was in one of those niches where being self-employed was probably more viable than finding a job in a crowded market."

So Dern chose self-employment as the path of greatest opportunity and is now matching his corporate salary. He's enjoying work as a freelance technology and business writer, and he's even working on a how-to book for the self-employed (see related story, "Setting Up Shop," by Dern).

Happy as he is, however, he expresses the widespread ambivalence of home-based entrepreneurs who have been fired into success. "There are jobs out there I'd take in a flash if they were offered," he says.

#### CORPORATE CUTBACKS

The ranks of laid-off corporate employees are swelling as global competition, business deregulation, and corporate mergers and acquisitions continue churning up the American workplace. According to the National Planning Association, a Washington-based business-research organization, corporate downsizing and plant closings have displaced about two million workers every year since the late 1970s. In New York City alone, about 45,000 workers in the financial

sector have lost their jobs since the Wall Street stock-market crash of 1987, and 15,000 to 20,000 more may be on the street this year, according to a recent report in the *Los Angeles Times*.

So turbulent are the times that 1 out of 10 employed adults fears being forced out of his or her current position sometime during the next three years, according to a recent Gallup poll conducted for the National Occupational Information Coordinating Committee (NOICC) and the National Career Development Association (NCDA).

Where are all these people going? Like Dern, more and more are going home. Outplacement specialist Margaret Newborg, senior vice president of New York-based Fuchs Cuthrell & Company, says 30 to 35 percent of the company's clients are starting home-based businesses, "and the number is rising all the time."

The Greenwich Group, an outplacement firm in Greenwich, Connecticut, actually encourages clients to consider self-employment. According to president Joan Learn, 30 percent of their clients start or buy their own businesses. Of these, 40 percent go into some kind of consulting, 30 percent start other types of businesses, 15 percent buy franchises, and 15 percent buy already existing businesses.

#### KICK IN THE PANTS

In addition to the financial pressure they face, employees suddenly kicked out of the corporate nest are often angry, depressed, fearful, and filled with self-doubt. "Saying it felt like the rug was pulled out from under me is an understatement. Everything I believed in came crashing down," says Veronika B. Carella, whose job as a manager at a Fortune 500 firm was eliminated while she was on maternity leave. "It probably took me a year to get over the anger," says Carella, who has since established a successful home-based food-distribution company targeting sole proprietors in the Larchmont, New York, area. Anger actually empowered Carella. "I felt it was such a great injustice that it gave me strength to go out and do what I needed to do."

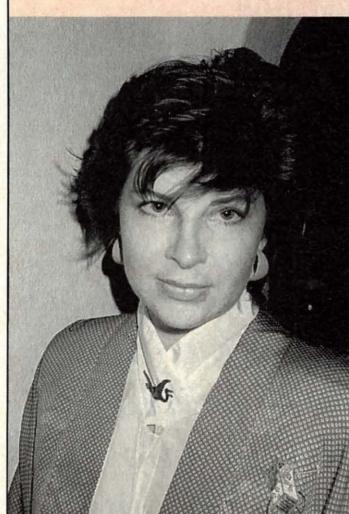
Not everyone can turn anger to his or her advantage, however. Some people are controlled by their anger and can focus only on what they perceive as failure, even in situations that had nothing to do with their performance. According to William P. Brittain, a management consultant who specializes in outplacement testing and assessment, "The sense of having failed can be overwhelming."

Marge Lovero, director of the Entrepreneurial Center at Manhattanville College, says that people regain their self-respect by becoming president of their own companies. "It gets replaced overnight," she says. "The anger is what stimulates and motivates them. Their pride is wounded, and it definitely has an impact on their egos, but they know they have skills and are not so hurt that they don't use them in a positive way."

Carella certainly did. One of the first graduates of the center, she plotted her business week by week, in step with the course curriculum, hiring an accountant when the center brought in an accountant to speak, an attorney when an attorney lectured, and so on. "I could have done it on my own, but it would have taken longer," says Carella.

#### OUTPLACEMENT COUNSELING

The Entrepreneurial Center is one of many such programs springing up at colleges across the country. Almost every college and university now offers programs for the would-be entrepreneur. Such programs are particularly helpful for people whose identities are so strongly linked with their



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**—Jennifer Beaver,  
public-relations  
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food distributor

ness. The Greenwich Group also helped Bettendorf make the transition from the corporate to the home-based culture. Apprehensive about going it alone, he spent hours actually working out of the organization's offices until finally they agreed that he had a bona fide consulting business.

up costs are the people who can least afford them—the blue-collar workers who are filing in droves out of closed industrial plants all across America.

"Someone coming from a blue-collar job would be more likely to start a business like an in-home fix-it shop or welding service, which would require capital investment in equipment, materials, and supplies," says Linda Kobylyarz, an independent career development consultant in Connecticut. "They need the money but are the least likely to have it."

The would-be entrepreneurs among their ranks, while still few and far between, are beginning to find help through government programs sponsored by State Occupational Information Coordinating Committees (SOICC), which are usually run out of state capitals. While most SOICC programs support job-search and training efforts, some, like the Private Industry Council in Riverside County, California, are operating entrepreneurial-training programs. The U.S. Department of Labor funded a \$48,000 experimental program in Riverside County that began last year and has resulted so far in three successful start-ups, according to executive director Eladio Amores.

And a pilot program in Washington State holds great promise for displaced workers of all stripes. Backed by a \$2.75 million grant from the U.S. Department of Labor, the state allows unemployed workers to cash out six months' worth of unemployment benefits in a lump sum to help them launch their own businesses. Checks are averaging \$4,300, and about 250 businesses have been started so far, says Judy Johnson, project director of the experimental program, Self-Employment and Enterprise Development (SEED).

The daring handful—fewer than 5 percent

work that a strike of the corporate ax often results in an identity crisis. Many like Carella are also fortunate enough to receive outplacement counseling, which usually includes assessments of interests, values, and personality characteristics. Expensive outplacement services are certainly not feasible for everyone. Individuals seeking independent outplacement counseling can expect to pay at least \$1,500 for a limited number of hours.

Melanie Radley, a communications specialist with an MBA in marketing and finance, went through outplacement counseling after she lost her job in New York's Department of Education. Radley started taking freelance assignments, though she didn't consciously go into business for herself. Suddenly she realized she was making as much on her own as she was as a state employee, and last February Radley incorporated her home-based company, MLR Marketing Enterprises. This year her billings will reach six figures.

"I'm thinking more and more like a business person," says Radley. "I'm pitching clients more now and I'm thinking about where my business should go." Radley continues to look back, however. "I don't like being a one-man band," she says. "I don't have the kind of ego that says I have to do it all. I miss teams."

Robert Bettendorf founded the Institute for Office Ergonomics in March 1989, after a 32-year career with IBM. When he took early retirement in 1989, he was director of the Video Display Terminal Ergonomics Project Office. Despite years of working with business plans at IBM, it took the Greenwich Group, whose outplacement services he used, to motivate Bettendorf to develop a business plan for his own busi-

ness. The Greenwich Group also helped Bettendorf make the transition from the corporate to the home-based culture. Apprehensive about going it alone, he spent hours actually working out of the organization's offices until finally they agreed that he had a bona fide consulting business.

"I felt a combination of shock and betrayal, but at the same time I felt somewhat relieved because I'd been thinking for a while of starting my own business, and my husband had been encouraging me," says Beaver.

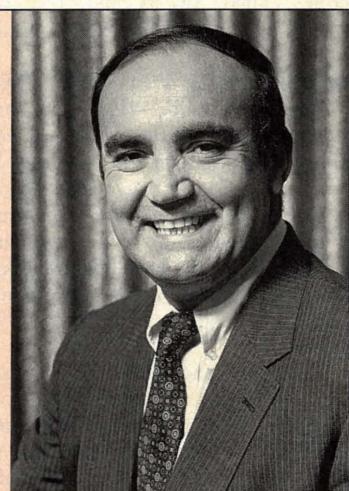
#### GOVERNMENT SEED MONEY

Despite admitted financial pressure, start-up costs for so-called information professionals and consultants are not prohibitive, and many of these people already have in place the most important key to building a business—a professional network.

Ironically, the people who face the highest start-

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**—Melanie Radley, marketing specialist**

PHOTOGRAPH BY JOE BERGER

of the unemployed have applied—are hooked. One 51-year-old woman who spent her life as a secretary only to be laid off last year is now fulfilling a childhood dream making chinalike dolls that she sells for \$40 to \$150. A former plant production manager is producing corporate videotapes using his bedroom as an office and his television set for editing. A welder used the money to start a welding business he runs out of the pickup truck he drives to construction sites. Even a widow with three children who dropped out of the program because she couldn't generate enough tax-accounting business says she will never go back to work for someone else. Pauline Witthauer is now starting another business out of her home called Sweats and T's, supplying sweatshirts and T-shirts to corporations.

#### **BORROW MONEY WHILE EMPLOYED**

Banks generally won't lend money to start-ups (see "Where's the Money," the cover story of the July issue). Bank of America in California, for instance, requires self-employed people to show three years' worth of income tax returns and supporting schedules. Credit lines against home equity often don't work—most banks don't authorize their use as seed money for new businesses.

Therefore, the best time to apply for a loan is before termination—if you see it coming. Sharon Bobbitt, an Illinois Bell veteran, knew for two years that she'd be accepting an exit package offered to employees in order to reduce company ranks. While still employed, therefore, she took a second mortgage on her condominium and spent \$10,000 on equipment to set up her publications design and production business, Publications Plus.

If you want a business loan, write a solid business plan. It can be short and simple: Include the purpose and amount of the loan requested, repayment method, description of the business, financial profiles of owners, description of the market, revenue expectations, and a list of collateral.

Loan applications aside, business plans are vital to the success of small businesses. They are the blueprints of a company, the benchmarks against which performance is measured. Consultants agree that the most successful entrepreneurs are those who take the time to develop a comprehensive plan and regularly check business

performance against it. Robert Bettendorf, for example, checks his revenues and expenses against his business plan every month.

#### **SELF-EMPLOYMENT CHARACTER**

To be self-employed, people must be self-motivated and self-reliant, with high self-esteem, says Brittain, who conducts assessment testing for the Greenwich Group. "They have to have a particularly strong need for control but must be able to set limits for themselves because it is awfully easy to take on more than you can handle. They must be able to recognize limits and say no."

The need for both achievement and independence must be strong, but, conversely, for home-based entrepreneurs, the need for social affiliation cannot be too intense. "That's the thing that will kill them," says Brittain. "You can be successful working out of your home if you have a high need for recognition and support, but you must be certain to build something into your system that allows you to get support."

Home-based himself, Brittain has put together an ex officio board of directors—"a group of people I trust who are also in business"—who meet once a month to exchange ideas. "It takes the place

of what normally happens in a business with colleagues," says Brittain, adding that such a group "should not be just social but should have a focused business purpose. Social reinforcement really doesn't substitute for that sense of business support."

Jack Sheehan, a 27-year veteran of Illinois Bell who dropped into self-employment on the strings of a golden parachute this year, felt so strongly about the need for support that he established his network of business associates before launching his own business.

"If I hadn't found people supportive and willing to give time and advice, I wouldn't have gone out on my own," says Sheehan, who accepted early retirement from his job as Chicago area director for economic development to become an economic-development consultant to small businesses.

"The transition continues to be difficult," Sheehan admits. Although finally pursuing his longtime dream "of being a risk taker, I would be foolish to be euphoric about it. It isn't that easy."

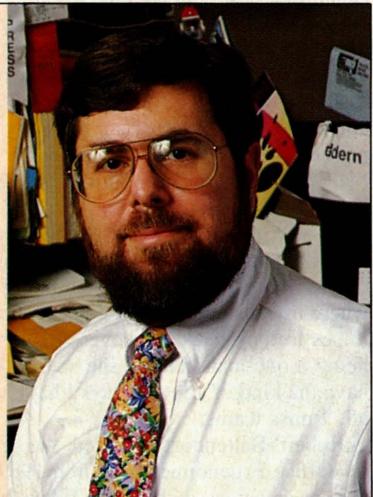
For one thing, he's finding that former corporate colleagues often don't have the power he thought they had to sign off on projects. Thus, his marketing challenge is even greater than expected. Probably Sheehan's greatest challenge, however, is being alone. He doesn't even use his home office for business as often as other parts of the house. "One real myth in America is the John Wayne myth of going it alone," he believes. "You need to have people you can rely on, to talk to along the way."

#### **PREPARE YOURSELF EMOTIONALLY**

The two most important keys to success for entrepreneurs—networking and business

**"I had just enough margin to keep me going, and I was in one of those niches where being self-employed was probably more viable than finding a job in a crowded market."**

**Daniel Dern, freelance writer**



PHOTOGRAPH BY JOHN PAWLIK

plans—repeatedly come up in conversations with successful home-based entrepreneurs, consultants, outplacement specialists, and industrial psychologists.

But in today's tumultuous business climate, another word of advice is in order: Be prepared intellectually, practically, and emotionally for the possibility of getting fired. "Manage your own career," advises Newborg of Fuchs Cuthrell. "Always have a good, up-to-date Rolodex and constantly reach out. Make speeches, communicate, talk to associates. Get yourself known."

Brittain suggests that employees begin thinking of themselves as independent business people even while employed. Consider the corporation you work for as your client.

"The relationship is going to be good for as long as, and only as long as, it is mutually beneficial," says Brittain. "Either party is in a position to decide it is no longer beneficial. Employees have no more obligation to remain in unsatisfying positions than the organization has an obligation to keep them if their services are no longer needed."

"The best defense is to take the initiative and not be surprised if you get nailed," Brittain says. "The people I have worked with who have been positively charged and have had the least trouble making the transition are those who had come to grips with that aspect of the employment relationship and were comfortable with it."

Melanie Radley is perhaps the quintessen-

tial example of forward-looking career management in the face of a layoff. Not only did she negotiate her own termination package, she'd written her own press release before the termination interview. The irony of her success, however, is that she expressed the same ambivalence as Daniel Dern and nearly every person interviewed for this article: "I still think of going back," she now says. "But it would have to be the right job." If fired-into-success entrepreneurs learn one thing, it's that they never have to settle for an unsuitable job again. ■

*Contributing editor RONNIE GUNNERSON wrote "The Best Ways to Keep Clients Coming Back," in the September issue.*

# Setting Up Shop: 32 Steps to Self-Employment

BY DANIEL P. DERN

I got the opportunity to explore full-time independence almost two years ago, when the company I'd been with for six years jettisoned more than 100 people—including me.

Fortunately, I didn't have to start from scratch. I'd previously worked on my own for three years, during which I made many educational mistakes. At my previous job I hired many freelancers, so I learned a few new mistakes that independents make. Additionally, I have been a freelance writer since 1973, so I already had an office nook, including a computer, bookkeeping system and files, as well as other essential tools for my trade. And I'd been careful to network extensively when at my job, so I had good professional contacts.

Running my own business has been (and continues to be) both a teaching and learning experience. I've advised dozens of beginners and written a handful of articles on topics like pricing, billing, collecting, and marketing.

I was recently contacted by a friend who

knew a writer leaving his job in order to freelance. I started to dash off a few quick tips, which turned into the substantial list that follows without much effort.

If you're planning to set up your own shop, here are tips on getting started, based on my own experience. They should apply to anyone selling time, expertise, and services—a dance instructor, dog trainer, consultant, accountant, programmer, physical therapist, or whatever. Obviously, not everything here will apply to you—I'm a home-based writer who uses the computer and phone extensively. And there's a lot more to setting up shop than taking these steps. But it's a start!



## BUSINESS PLANNING

**1. Establish an identity.** Succinctly identify your primary service or product. For example, I'm (usually) a "freelance journalist and PR writer specializing in high-tech and business, plus computer humor, science fiction, and musical comedy."

**2. Choose a name and tag line.** It's essential to condense your identity for your busi-

ness card, answering-machine message, stationery, and so on. I use "Dern Associates" (a polite fiction) and "High-Tech Writing Services."

**3. Draw up a business budget.** Figure your salary (including cost of benefits) and the administrative costs of running your business (those expenses particular to your profession). As a first estimate, calculate two to two-and-a-half times your salary.

**4. Determine your rates (hourly, daily, weekly, per project) for various services, based on your budget and what your peers charge.** Assume a billable maximum of 30 working hours a week, 40 weeks a year. If your estimate isn't between \$40 and \$150 per hour, or \$300 and \$1,200 per day, double-check your figures. If you can't meet your budget without reasonably regular work, rethink your game plan.

**5. Write a business plan.** Do you have any guaranteed or likely projects lined up for the next six months? Then what? What mix of short/long, time/fixed rate, urgent/whenever projects do you want? Do a one-year time line for starting up, getting organized, beginning first projects, and starting new ones. Get several opinions.

**6. Leave time for marketing and sales.** Allot an average of at least an hour per day—more in the first six months or so—to

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sales, including cold and follow-up phone calls, interviews, letters, trade shows, and so on. Don't wait until one project is done before seeking out another. Always scout for new clients and projects!

**7. Set up an accounting ledger.** Start a general ledger for your record keeping, so you can tell how your business is doing and have records to calculate taxes. Design a system to keep copies of all important paperwork, especially on financial matters. I use a three-ring notebook, organized into receipts, invoices, and expenses, and a set of envelopes to file receipts for each expense category.

**8. Plan a year ahead.** Until you already have work lined up, or have savings for a year's worth of business and salary-equivalent expenses, think thrice before leaping.

**9. Talk with everyone you know and meet, and always carry business cards.** Read articles and ads in professional journals, the local paper, and the *Wall Street Journal*. Join professional associations and the local chamber of commerce; speak and contribute articles judiciously. Go to meetings, trade shows, and conventions.

**10. Spruce up your wardrobe.** First impressions count. Do you have a business wardrobe that presents the correct image? If not, start acquiring one. I read a few books, took a half-day adult education course, used several friends as wardrobe consultants, and went to Brooks Brothers for a few classical "sincere" suits.



#### MONEY AND FINANCES

**11. Start a business checking account, with overdraft privileges.** You'll be glad your business checking is separate from your personal account.

**12. Open a savings account for federal, state, city, and Social Security taxes.** Put away 40 to 45 percent of gross receipts, possibly after excluding billable expenses and some nonbillables.

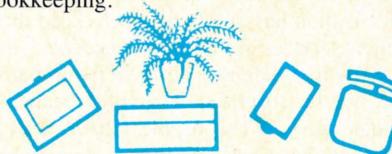
**13. Open a credit line.** If your bank or credit union will give you a line of credit, take it. If you're currently employed, apply for a healthy limit now. Say, \$10,000 to \$15,000. It's like a preapproved loan.

**14. Stock up on credit cards.** If nothing else, you need one for travel, car rental, and ordering by phone. Dedicate one major credit card to business. Also consider an American Express Gold Card, which offers many useful services, like high check-cashing privileges and end-of-year categorized accounts for tax purposes. Membership costs range from \$50 to \$100 a year.

**15. Consider a business loan.** If you need a bank loan to cover your major start-up purchases (computer, furniture, fax ma-

chine, and so on) and operating expenses, apply for one while you're still employed.

**16. Hire a trustworthy accountant.** Find one who handles other independent business people. Get start-up advice on your bookkeeping.



#### OFFICE, FURNITURE, AND EQUIPMENT

**17. Find space for an office.** Start modestly, in a spare room, and meet clients at nearby hotels and restaurants, unless your line of work demands a separate office.

**18. Choose the right furniture.** Get a good filing cabinet or two, a desk, and a computer station. Get a comfortable chair that's kind to your back. Used furniture is often a great bargain. I'm still using a sheet of plywood over two-drawer file cabinets as a desk.

**19. Buy a computer.** You can get started with a 286 computer, laser printer, and integrated software (such as Microsoft Works) for about \$2,500. That's good for correspondence, word processing, financial planning, and record keeping. Get a good surge protector now. Sooner or later, you'll probably want a 2400-baud modem, an uninterrupted power supply, a file-backup device, more software, and other stuff. Budget \$1,000 to \$2,000 a year for ongoing purchases, excluding your initial system.

**20. Invest in a fax machine.** You can get a no-frills fax for about \$400 or a feature-packed fax for \$1,000 or so. Once you have your own, you'll find it essential, even if you send many faxes via e-mail.

**21. Consider an office copier.** It's less essential than a fax, in my opinion, but it is a time-saver. I'll be ready to get a low-end machine to avoid unnecessary trips down the block when I find one for under \$700.



#### PHONE SYSTEM

**22. Add new phone lines.** If you're working from home, strongly consider a separate line for your business, and possibly another for your fax/modem. If you use the phone extensively, get a headset (\$50-\$150) or a speakerphone or both.

**23. Get a modern answering machine.** If you want to call in for messages, essential features to look for include tollsaver (answers in two rings if you've received new calls, four if you haven't); and memory remote retrieve (so you can listen only to messages received since you last called in, but still keep the old messages).

#### 24. Stock up on telephone calling cards.

Get one just for business, to simplify accounting when preparing your expenses.

**25. Consider a portable cassette recorder, for recording meetings and interviews, dictating, and so on.** They cost \$50 to \$100 each. You might also want a dictaphone/transcriber (\$200-\$400), if you expect to type these conversations. If you need to record phone conversations, get a telephone recording control and leave it permanently connected to a cassette or transcriber.

**26. Subscribe to an electronic mail service or two.** Pick the one(s) that people you work with subscribe to. Nearly all services will let you send e-mail to fax machines or as hard copy. I use MCI Mail.



#### BENEFITS AND INSURANCE

**27. Sign up for personal life and health insurance.** If you can stay on your present plan or obtain coverage through your spouse, do so. Start checking out alternatives if necessary.

**28. Get disability insurance if you can afford it.** Unfortunately, it's difficult to obtain if you work from home.

**29. Insure your business.** Get business-grade replacement-cost insurance for all your business equipment. Get a special rider for computer equipment that covers more kinds of disasters (about \$10 to \$15 a year for each \$1,000 covered). Consider an umbrella policy for general coverage, for clients falling on your property and breaking a leg, for example.

**30. Prepare for retirement.** Open a retirement account (IRA, Keogh, or SEP), and pump money into it at tax time every year.

#### FINAL TIPS

**31. Read books to educate yourself about the business world.** I recommend *You Can Negotiate Anything*, by Herb Cohen (L. Stuart, 1980); *How to Sell Anything to Anyone*, by Joe Girard (Warner, 1977); *The Art of Negotiating*, by Gerard Nierenberg (Hawthorne, 1968); *The Secrets of Consulting*, by Gerold Weinberg (Dorset House, 1985); and *Tax Guide for Small Businesses*, IRS Publication 334.

**32. Promote yourself relentlessly.** Wear bright accessories (ties or scarves). Always answer the phone with your most upbeat voice. Network shamelessly. Always carry business cards. Do follow-up calls and mailings religiously. Learn to say no to the wrong work. Try to work regular hours. Learn from your mistakes. Be ready to get a full-time job again if it doesn't work out. Keep good records. Try raising your prices. Cash all checks quickly. Eat your vegetables. Enjoy. ■

# The Best Opportunities For Telecommuters

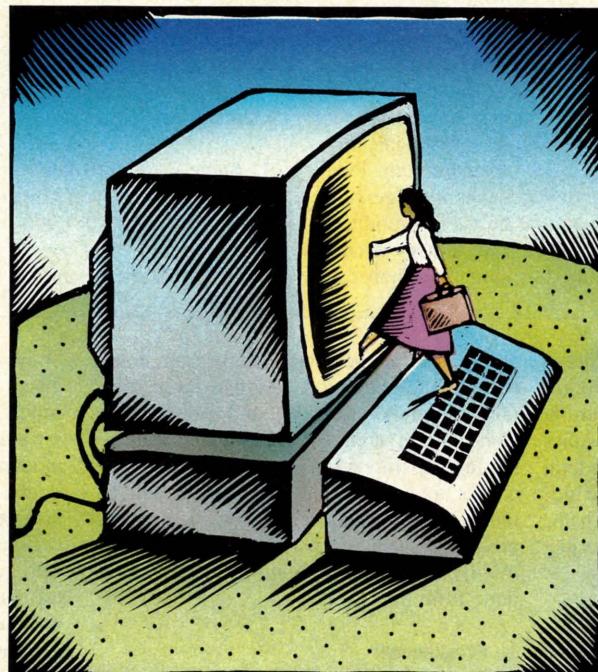
*Would You Like to Work from Home? Here's a List of the Companies with the Most Telecommuters and the Jobs Best Suited for Remote Work.*

BY BRAD SCHEPP

Three million people now "telecommute" to company jobs from their homes an average two to four days a week, and studies show that millions more want to join them. Telecommuting can be a win-win proposition for you and your company. You gain flexibility and freedom, and reduce stress. Your company keeps a valuable employee who is happier and more productive than ever.

In very few companies will a manager tap you on the shoulder and transform you into a telecommuter. In most cases, you'll have to take the initiative and present a compelling argument on your own behalf. That's the bad news. The good news is that the climate is improving, especially in small and large companies, which are more likely to be fully computerized and where managers are more likely to manage by results than by walking the shop floor. And in many companies, managers themselves are considered the best telecommuters.

In all, the widespread use of computers at all levels of business and the increasing use



of computers to send information and mail between remote offices and headquarters point to a steady upward trend for telecommuting programs.

## FORMAL AND INFORMAL TELECOMMUTING

There are two types of telecommuting—formal and informal. Formal telecommuting is sanctioned by top management and the personnel department. While formal telecommuting programs get a lot of publicity, fewer than 50 major companies have formal plans, and they account for only a fraction of

all telecommuters, says consultant Jack Nilles, who coined the term *telecommuting* in the early 1970s. Most telecommuting is done informally by people who work out private arrangements with their bosses. Others at the company may not even know about it. Such "guerrilla" telecommuting is widespread and growing by 20 to 30 percent per year.

Formal telecommuting programs are most prevalent on the West Coast, but informal telecommuting is nationwide. It doesn't take a California mind-set to appreciate telecommuting's benefits. It just takes good business sense and open-mindedness.

## TALKING TO YOUR BOSS

In most cases, it makes much more sense to approach the company you now work for rather than look for work as a telecommuter at a new company. (Most companies with formal telecommuting plans allow only current employees to work this way, although there are exceptions.) Present a case that highlights the benefits for your company, not merely the benefits for yourself. Stress increased productivity, since telecommuters are on average 20 percent more productive than office workers. Other corporate benefits depend on your company's climate. Does your company have trouble recruiting people? Is morale low? Is office space scarce?

How will your boss react when you suggest telecommuting? Most likely, he or she

BRAD SCHEPP is the author of *The Telecommuter's Handbook: How to Work for a Salary Without Ever Leaving the House* (Pharos Books, 1990). An associate editor with a McGraw-Hill company, he can be reached on CompuServe (71150.2507) or MCI Mail (BSchepp).

## TELECOMMUTING EMPLOYERS

The companies below were chosen and ranked based on the number of current telecommuters and the prospects for telecommuting there in the future. In fact, the number of telecommuters increases every year at virtually all of these companies.

### 1. AT&T

550 Madison Ave., New York, NY 10022; (213) 239-7166 (in Los Angeles)

*Number of Telecommuters:* 260 formally; "thousands" informally

*Positions:* Sales rep; project manager; public-relations manager; telemarketing rep; attorney

It's no surprise that AT&T, the country's leading telephone company, is also one of the top boosters of telecommuting. AT&T's Los Angeles headquarters pioneered telecommuting for the entire corporation. It worked out so well there that AT&T unveiled programs in Phoenix and at its Bell Labs facility in New Jersey.

Many AT&T telecommuters are computer salespeople who

find the quiet environment of a home office handy for drafting proposals, compiling bids, and managing accounts. Others who telecommute include project managers, who oversee the installation of big telephone systems; lawyers; and public-relations people.

### 2. Pacific Bell

140 New Montgomery St., San Francisco, CA 94105; (415) 542-9000

*Number of Telecommuters:* 1,500

*Positions:* Engineer; programmer; analyst; forecaster; marketing planner

PacBell's telecommuting program is one of the country's largest and best publicized. Its telecommuting program started in 1984, when the Olympic Organizing Committee asked local businesses to help reroute traffic. Telecommuting is now so commonplace here that no one even bothers to formally track it. Past surveys found that 96 percent of PacBell telecommuters were satisfied with it.

Two things stand out about this program. First, only managers can telecommute. Pacific Bell believes managers make the best telecommuters since they are already accustomed to managing their own

time, something all telecommuters must do. PacBell is also one of the few companies with satellite offices for telecommuters. Some of its Los Angeles employees commute to a satellite office in Woodland Hills rather than make the daily trek downtown.

### 3. California State Department of General Services

601 Sequoia Pacific Blvd., Sacramento, CA 95814; (916) 324-1739

*Number of Telecommuters:* 150 formally; many more informally

*Positions:* Attorney; clerical worker; actuary; transcriber

California's formal pilot program ended in January, although telecommuting continues in full force. Managers and other employees from more than 15 state agencies now telecommute, including 30 attorneys with the Attorney General's office in Los Angeles. The next step is for the state legislature to formally recognize telecommuting as a work option for all state-government employees.

### 4. Apple Computer, Inc.

20525 Mariani Ave., Cupertino, CA 95014; (408) 996-1010

*Number of Telecommuters:*

480 to 600

*Positions:* Technical writers; strategic planners

Apple makes it easy for its employees to work from home. After a year on the job, all employees get a free Macintosh computer of their choice. All employees are connected to the company's AppleLink worldwide electronic network so they can instantly communicate with other Apple employees across the hallway or around the world. Apple's telecommuters are typically involved in long-range projects, such as writing computer manuals or doing strategic planning.

### 5. County of Los Angeles

222 N. Grand, Room 585, Los Angeles, CA 90012; (213) 974-2631

*Number of Telecommuters:* 500  
*Positions:* Probation officer; welfare analyst; planner; typist; management analyst

Los Angeles County employs more than 80,000 people and has an annual budget of \$10 billion. After one year, its formal telecommuting project has grown quickly and embraces a wide variety of workers. The county expects several thousand of its workers to eventually telecommute. "We know that tele-

will at least hear you out. The benefits—increased productivity, savings in worker amenities, improved employee recruiting and retention—are too tempting to dismiss out of hand. And now, with the federal government embracing telecommuting, companies no longer have to feel like pathfinders when they consider it. They are just being smart.

## TELECOMMUTING'S TOP JOBS

The top 10 jobs for telecommuters, listed below, were selectively chosen. These jobs show up again and again in surveys of telecommuters. These jobs are suitable for telecommuting because they don't require much face-to-face interaction; computers and/or telephones are key tools; performance is easily measured; and work doesn't often require access to materials at the central work site. Finally, the U.S. Bureau of Labor Statistics indicates high growth potential for these jobs, meaning that they will be harder to fill in the future, making it more likely that telecommuting will be a sign-up incentive.

There are probably hundreds of other cor-

porate jobs that you can perform from home. Most white-collar jobs involve three steps: preparation, production, and presentation. Consider an architect's job. The architect begins by interviewing the client. Next comes the production stage, in which the blueprints are created. Finally, the architect presents the blueprints to the client. It's the middle stage—production—that often can be done from home.

### 1. Programmer

Scores of companies employ programmers who telecommute. The job often calls for the peace and quiet that a home office offers. When programmers need to tap into their companies' computers, there is no reason they can't do so remotely. The ability to access these resources at night, when demand is low, also adds the benefit of quick response time.

### 2. Translator

Many translators work by computer and modem. Translators usually must work quickly, and there is no faster way to transmit information to a client than by modem.

Some companies, such as Berlitz, actually insist that their translators have computer setups. "Anybody who's serious about being a translator will have a microcomputer and modem," says Berlitz sales manager David Laube.

### 3. Engineer

Engineers of all types, but especially software engineers, make excellent candidates for telecommuting. Like programmers, software engineers often work alone. Hughes Aircraft, for example, recognizes that programmers and engineers need an atmosphere conducive to creativity. So it gives these professionals a free hand in deciding when they will work at home.

### 4. Sales Representative

Sales reps have a long history of working from home. Now, with personal computers, modems, and fax machines so widely available, there's less incentive than ever for a sales rep to make the trip into company headquarters. Because a sales rep's output is easily measured, managers don't have to worry about managing from afar. A drop in productivity is quickly apparent.

commuting works," says project manager Margery Gould.

The county looked to telecommuting to address two concerns. First, office space was so scarce that it had no place to put new workers. Second, the area's South Coast Air Quality Management District mandated that local employers devise ways to reduce employee commuting to cut smog and traffic problems.

#### **6. General Electric Plastics**

214 7th St., Suite 401, Parkersburg, WV 26102; (304) 424-5411

*Number of Telecommuters:* 300 to 400

*Positions:* Salesperson; administrative assistant; programmer; analyst; manager

This division of General Electric is a leading manufacturer of chemicals and plastics products. The company employs a lot of technical people, including engineers and programmers. Increasingly, it finds that applicants right out of college ask to telecommute. Since they probably had computers in their dorm rooms, they are used to working from home. "If their job is appropriate for it and their manager agrees to it, we let these em-

ployees telecommute part-time," says PC Coordinator Dennis Conley.

#### **7. The Federal Government**

Office of Personnel Management, 1900 E St., OPRD Room 6462, Washington, DC 20415; (202) 606-2130

*Number of Telecommuters:* 1,000 expected by 1991

*Positions:* All classes

Like other employers, the government is having trouble recruiting and retaining employees. To better compete, Uncle Sam may soon offer telecommuting as a work option to its three million employees. It is now testing the waters, through a pilot program involving employees from nearly every federal agency, including the Environmental Protection Agency, Agriculture Department, Treasury Department, and the Interior Department. "All classes of workers are eligible, as long as their jobs are portable," says Wendall Joice of the Office of Personnel Management.

#### **8. US West, Inc.**

7800 East Orchard Rd., Englewood, CO 80111; (303) 978-6260

*Number of Telecommuters:* 200

*Positions:* Staff manager; computer-systems analyst; programmer; records assistant

Like many companies, US West was very pragmatic when it evaluated telecommuting. The company asked, "What's in it for us?" US West concluded that telecommuting would save dollars, and it has not looked back since. Telecommuters and their managers go through an extensive training program where they discuss the good, the bad, and the ugly about telecommuting.

Besides telecommuting, US West offers flextime; compressed workweeks; and excused time, which allows workers to take time off (without pay). It is also one of the few companies that offer job sharing, in which two employees share one job. It's no wonder that *Working Mother* magazine named US West one of the nation's top companies for working mothers.

#### **9. Travelers Corporation**

One Tower Square, Hartford, CT 06183; (203) 277-0111

*Number of Telecommuters:* 200

*Positions:* Researcher; claims processor; manager; programmer

Travelers began its formal

telecommuting program in 1986 in response to difficulties in recruiting and retaining employees. The program began in the data-processing department and has since expanded to include workers in the employee-benefits department and other parts of the company.

Telecommuters here are employees with a track record. Travelers treats its telecommuters quite well, setting them up with IBM PC AT or Personal System/2 computers and tying them into the company's voice-mail and electronic-mail system.

#### **10. JCPenney**

100 N. Corporate Dr., Brookfield, WI 53005; (414) 792-5525

*Number of Telecommuters:* 200

*Positions:* Customer-service representative

The next time you order from a JCPenney catalog, consider that the person taking your order may be sitting at home. The giant retailer has 16 telemarketing centers throughout the country; 8 have telecommuters. JCPenney has found that telecommuting has helped it solve a key problem in the telemarketing business: turnover.

#### **5. Computer Systems Analyst**

Systems analysts help companies to computerize. They begin with site visits; from there they design the system using mathematical models and cost accounting. It is this lengthy design phase that's easily performed at home. Deadlines that call for evening and weekend work and the likelihood that systems analysts already have the equipment they need to work from home also make this a job good for telecommuters.

#### **6. News Reporter**

In the early 1980s, reporters popularized laptop computers, with which they filed stories from the field. Many still work that way. They gather information either face-to-face or over the phone. Then they write their stories from home or from the field.

#### **7. Public-Relations Professional**

Public-relations professionals spend a lot of time gathering information, which is why they are among the heaviest users of on-line databases. Companies such as San Francisco's Hi-Tech Public Relations now find that there's no reason why some of their account managers cannot work from home. In fact,

when trying to pitch its expertise in technical areas to new clients, Hi-Tech may find that having telecommuters is good PR.

#### **8. Technical Writer**

Technical writers, like many other writers, use computers to do their jobs. Throw in some documentation and a phone so they can pick the brains of technical experts, and technical writers have everything they need to work—from anywhere. Many computer companies hire technical writers.

#### **9. Stockbroker**

Stockbrokers no longer have to work from brokerage houses to monitor stocks. On-line services from Telerate, Quotron, and Dow Jones bring the stock market into a stockbroker's home. Also, new FM-sideband services continuously broadcast stock quotes straight to computers—often in background mode. Since brokerage firms are generally located in big cities where commuting can be difficult, telecommuting is especially attractive to stockbrokers.

#### **10. Data-Entry Clerk**

In the 1970s, data-entry clerks were among the first employees to telecommute.

The Cottage Keyer program at Blue Cross/Blue Shield of South Carolina, operating since 1978 and open only to current employees, is one of telecommuting's true success stories. The error rate for the at-home keyers is near zero, compared with a 2 percent rate for the office keyers. The Cottage Keyers also produce more. Since production directly affects their pay, they earn more, too.

#### **START SLOW**

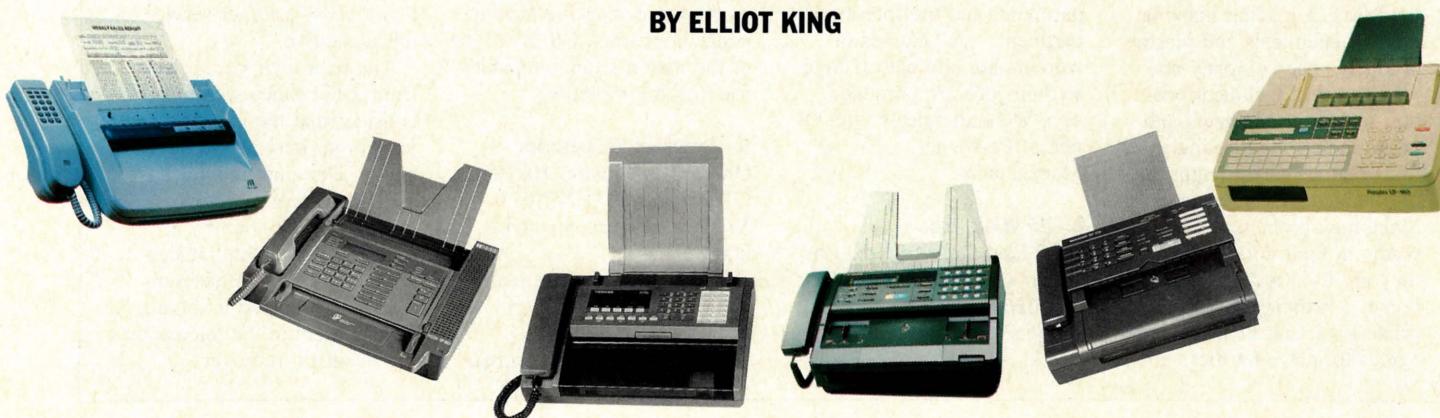
If you want to try telecommuting, you should switch gradually. For example, one day when you have a pressing deadline, ask to work at home, where you can give the project the thought and concentration it demands. Once you've proved it's working well for you and your employer, move to increase that time.

But there will be a learning curve for both you and your employer. During that time you should show up at the office fairly often. Remember that most employers are not yet used to telecommuting employees, and you'll have to reassure your boss that you're working productively. ■

# Fax Wars: More Features For Less Money!

*Fax Machines with Voice/Fax Switches, Memory, Paper Cutters, and Answering Machines Enhance Your Business*

BY ELLIOT KING



**A**nyone who has not been on a raft in the South Pacific for the past two years knows that facsimile technology—the ability to send hard-copy images over telephone lines—is the most dynamic new communications tool since the touch-tone telephone. A fax can speed, simplify, and enhance your business.

Last September, Neil Larson, a business communications consultant who lives in Poway, California, bought a Canon fax machine. A client of his was scheduled for an extended stay in a Houston hospital and fax communication was the only way Larson could ensure that ongoing projects were finished in a timely fashion.

After a few weeks, Larson made an interesting observation. Although fax technology improved his ability to communicate with

long-distance clients—he has a major account in Detroit and another in Mexico—it helped even more locally. "I live too far from my clients," he says. "My Honda Accord has 275,000 miles on it."

These days, instead of driving, if he needs to send a rough draft to a client for approval, send corrections to a printer, or suggest changes in artwork, he uses a fax.

Calvin Carr, a publisher in northern California, bought a Murata fax machine two years ago. "I use it for two things," he says, "to send the insertion order for an ad and to receive the confirmation. I have not made a sale until I have the confirmation, and this helps overcome objections about the time it takes to get the paperwork done."

Carr fills out sales orders, faxes them to his clients with a thank-you note, and asks the client to sign it and fax it back. "I want to make it as easy as possible," he says. "A lot of salespeople just sit around waiting for the paperwork."

Carr also uses his fax machine to send

sales literature, research, and information to prospective clients. "While I can send oversize material overnight, I can send a pie chart of readership, for example, via fax. It is immediate gratification," he says.

Fax technology is a buyer's market today. With about 65 brand names competing in the consumer market and another dozen or more companies offering fax boards (add-on boards that allow your computer to double as a fax machine), you should be able to find a product with the features you want at a much lower price than you would have paid last year. For example, 8 or 16 shades of gray were previously found only in high-end machines. Now they have become standard on virtually all new models.

Basic, no-frills fax machines sell for \$400 to \$700, with the retailer's discount (list prices are 20 to 100 percent higher). Fax machines with document feeders and paper cutters range from \$750 to \$1,100. Machines with voice/data switches, memory, and other sophisticated features sell for \$1,100 and up.

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ELLIOt KING is coauthor of *The Book of Fax* (Ventana Press, 1990). His last article for HOME-OFFICE COMPUTING was "The Truth Behind Get-Rich-Quick Ads," in the November 1989 issue.

## MUST-HAVE FEATURES

Beyond the simple ability to send and receive documents, most homeworkers have agreed on a specific set of must-have features and rejected some of the functions manufacturers love to hype.

First, many people want an automatic document feeder, which allows them to send multipage documents (generally 5 or 10 pages) unattended. Second, they want an automatic paper cutter, which cuts each page as it's received and eliminates long rolls of fax messages piling up on the floor. Third, people want automatic speed-dialing and redialing, both of which work the same as they do on a telephone. Finally, most home-office users want a voice/fax switch, which can determine whether the incoming call is from a person or another fax.

Most users can live without some of the features that manufacturers tout. Polling, which gives you the ability to store information in your fax for retrieval by a remote fax, is one. An oversize automatic-dialing directory, with as many as 100 numbers, is another.

Delayed transmission, which allows you to program your fax to send a message late at night when the phone rates drop, and broadcasting, which enables you to send a single message to many different machines, have drawn mixed reviews. People usually don't want to wait until midnight to send their faxes; they want to send them immediately. And broadcasting can be fairly difficult to program because the LCD control screens on most fax machines are quite small.

## FAX BOARDS

Besides stand-alone fax machines, several manufacturers have developed fax boards that add fax send-and-receive capability to personal computers. For people who create documents using their computers, being able to send them directly from the computer eliminates the often tedious and time-consuming task of printing hard copy. On the receiving end, because fax boards use the computer's printer for output, the annoying thermal paper used with low-end and mid-range stand-alone units can be avoided. Some fax boards also double as modems.

By tapping the computer's intelligence, fax boards can perform most of the functions of high-end fax machines more easily and at a fraction of the cost. For example, the Frecom Fax96, from Fremont Communications Company, sells for \$195.

But, despite their promise, fax boards have drawbacks. Even though fax boards are supposed to run in the background and send or receive a fax while you continue to work on the computer, they don't always work smoothly. "It interrupted my work,"

says Carr, who evaluated a fax board before opting for a stand-alone fax machine. "I want to be able to turn my fax machine on and then not think about it."

Furthermore, without a laser printer, printing fax messages from a fax board is awkward. Since the fax is printed as a graphics file, not a text file, it can take as long as two minutes to print a one-page fax on a dot-matrix printer. A 10-page fax message can tie up your printer (and perhaps your computer) for 20 minutes. And even if you can continue to work on the computer, who wants the noise? Of course, you may not need to print out the fax.

If you want to fax a piece of paper (as opposed to a computer file), you must add a scanner to your system. That drives up the cost of a system to the same level as a

The one catch is that the first generation of send-only fax/modems transmits files at 4800 bps, half the speed of stand-alone fax machines and full-function fax boards. This fall, however, Zoom Telephonics plans to introduce a 9600-bps send-only fax board.

Clearly, for computer owners in the market for 2400-bps modems anyway, a send-fax feature is an attractive option.

## VOICE/FAX SWITCHES

Does a fax device—a stand-alone fax, a fax board, or a send-only fax/modem—need its own telephone line? Ideally, yes, but second telephone lines can be expensive, and many homes are not wired to accept a third or fourth line. Moreover, if you opt to install an additional line, unless your fax traffic is very heavy, you will want to maximize your investment by using it for purposes other than fax—for data transmission, to take calls when you are on your primary phone, or as a private line, for example.

Fax equipment that can easily share telephone lines with voice and data applications is key for home-office workers. One current solution is to use a voice/fax switch, which senses whether an incoming call is a fax or a voice, and treats it accordingly (see "Avoiding the Cost of a Second Line," in the April issue). More than 70 companies now offer voice/fax switches, which cost from \$100 to \$300. And most new fax machines come with built-in voice/fax switches.

Another solution is to use a fax machine with a built-in answering machine. These machines generally use a short outgoing message instructing people to leave a voice message. If no message is heard, the machine assumes a fax machine is calling and defaults to fax mode. The outgoing message has to be brief, usually less than 10 seconds. If not, the calling fax machine could hang up before sending its information.

The entire Panasonic KX-F line (ranging in price from \$850 to \$2,300) comes with integrated answering machines, as do the Toshiba Model 3600 (\$1,200) and the Sharp UX-200 (\$1,400). The PhoneMate Fax 500 (\$800) and Fax 600 (\$900) and some other fax machines come with interfaces that allow them to work with external answering machines.

## ADDING MEMORY

In the past year or so, fax manufacturers have begun to add computerlike memory to fax machines. Memory (most units with memory have 256K) makes the machines "smarter." Memory can allow messages to be received in confidential electronic mailboxes that can be accessed only by specific users; it enables fax machines to forward messages to other fax machines, a handy feature if you travel extensively; it allows

## Fax equipment that can easily share telephone lines with voice and data applications is key for home-office workers.

moderately priced stand-alone fax machine. Finally, if you plan to receive fax messages while you're away, you must leave your computer on all the time. And many home-office workers simply do not want to leave their computers on every night, even though there is no evidence that it harms the machine. For all these reasons, fax boards are primarily useful for sending documents from your computer, but not so useful for receiving a high volume of faxes.

## SEND-ONLY FAX/MODEMS

In response to these concerns and armed with research that indicates that most fax boards are used to send messages rather than receive them, companies such as Zoom Telephonics (HC-2400S; \$199), GVC Technologies (Mini Fax-Modem FMM4824; \$265), and CMS Enhancements (Minifax; \$379) are offering send-only fax capability built into 2400-bit-per-second (bps) modems. Rather than try to compete with stand-alone fax machines, these send-only fax modems (either internal or external) simply offer an additional option to computer users already interested in telecommunications. Send-only fax/modems cost in the neighborhood of \$200.

## NEW FAX MACHINES

The following listing of new fax machines is designed to give you an idea of the types of machines on the market. Keep in mind that retail distribution for fax machines is spotty. A given retailer

may stock only one brand, or just one model from a given manufacturer's line-up. Thus, it's more important to find the features you need rather than a specific model. You can expect to find street

prices 20 to 50 percent lower than the list prices given here. All machines are G3 compatible, and all send one page in 20 seconds or less.

Canon Faxphone 26 (\$1,795)



**This fax machine has it all: a 15-page document feeder, a paper cutter, a voice/fax switch, and an optional serial interface to connect to a computer. The Faxphone 26 can receive up to seven pages in memory and speed-dial one document to 30 different locations. It has no answering machine, but you can program an outgoing message.**

Toshiba Model 3450 (\$1,100)



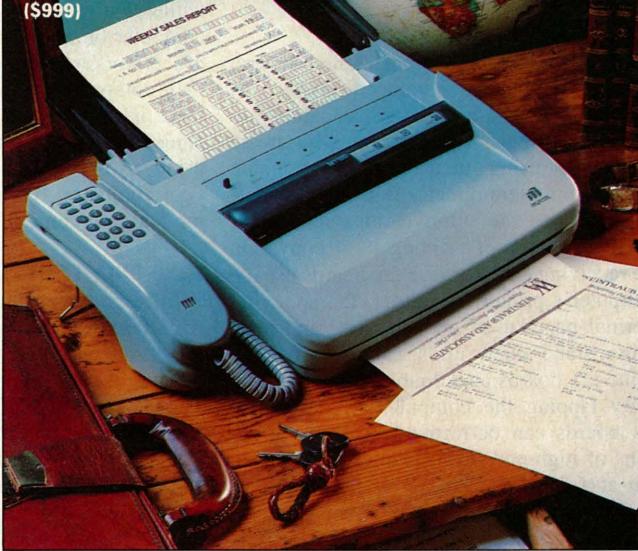
**The Model 3450 has a 10-page document feeder, a paper cutter, and a voice/fax switch, and can store 7 pages in memory. It has no answering machine, but does allow you to record an outgoing message.**

Panasonic Panafax UF-160 (\$1,295)



**The Panafax has a paper cutter, automatic document feeder, and a voice/fax switch, but no answering machine or memory. Outside callers must use a password, which prevents junk-fax transmissions. If you experience trouble with the machine, you can dial a toll-free number and the machine will run a self-diagnosis, which the company says solves 85 percent of all problems.**

Murata M1100 (\$999)



**While the Murata M1100 has no answering machine, it does have an outgoing message to tell callers they have reached a fax machine. It has a five-page document feeder, a paper cutter, and an additional telephone jack so that you can connect an answering machine if you wish.**

Sharp UX-170 (\$1,249)



**Sharp** is the leading seller of fax machines. This model comes with a paper cutter, a 10-page document feeder, and a voice/fax switch. It also transmits one page in 15 seconds.

Ricoh RF860 (\$1,695)



Besides a paper cutter, automatic document feeder, and seven-page memory, the Ricoh features a speakerphone and music on hold. A battery backup prevents loss of the autodialer's memory when the unit is unplugged or loses power. However, there is no voice/fax switch.

for the broadcasting of several fax messages per night to several different locations; and it provides memory for backup storage should the paper supply run out or the power shut off.

Memory also helps manufacturers differentiate their offerings by adding little twists. For example, Brother International's Instafax 300 stores a cover page, eliminating the need to manually prepare cover pages. The Fujitsu dex 150 has a 20-page memory and will forward documents to a remote fax machine; you instruct the dex 150 where to send from any touch-tone phone. Other fax machines with memory include the Epson PriorityFax 3000 (\$1,800), the Toshiba 3450 (\$1,100), the Samsung FX2315 (\$1,200), and the Ricoh RF 860 (\$1,700).

You can also add memory with a series of add-on products offered by Electronic Modules, Inc. The EMI products, which start at \$499, add from 256K to 1MB of memory to your fax machine. As another option, the Canon Faxphone 26 (\$1,800 without software) and the Murata PCF 9 (\$3,000) come with a built-in computer interface that allows your fax machine to use your computer's memory. And the Ricoh DX-1 (\$799) is an interface to connect a fax machine to a computer. An added advantage of a computer-fax connection is that you can use the fax machine as a scanner to turn paper documents into computer files.

### HOW TO FAX WITHOUT A FAX

If you don't anticipate that your fax volume will be heavy enough to justify purchasing a machine yourself, you have several options available. The most obvious is the public fax network. Many print and copy shops, post office-alternative stores like Mail Boxes Etc., and even some post offices now offer fax machines for public use.

But using public fax machines is costly. Typically, an incoming fax will cost \$1 a page or more, while the charge for sending faxes may run \$5 for the first page, \$4 for the second, and so on, plus the cost of the telephone call.

You can also send faxes from your computer through various electronic mail systems. MCI Mail, Western Union's EasyLink, CompuServe, and other electronic mail networks now offer the ability to send, although not receive, fax messages. The sophistication of the fax features in these e-mail systems is increasing rapidly. For example, MCI and EasyLink will digitize your company letterhead and a signature for inclusion on fax messages sent using the service. EasyLink sends faxes in a variety of type sizes.

### THE FUTURE OF FAX

Besides adding memory, answering machines, and voice/fax switches to fax machines, manufacturers are also working to

find ways to accommodate larger rolls of paper. The 96-foot roll found on most fax machines is often quickly consumed. At the same time, manufacturers are trying to design small-footprint machines that will fit into crowded home-office settings. And they are looking to bring down the price of plain-paper fax machines, which now sell for \$4,000 and up. For now, fax owners who want to print faxes on their laser printers can try out the Jet Fax (\$1,300; from Hybrid Fax, Inc.), a product that connects the fax to the printer.

In addition to adding major features, fax manufacturers will also fill specific niches. The use of portable fax machines will be spurred by the spread of cellular-telephone technology. Audiovox's portable model AFX-500 (\$1,000) can be connected to a cellular telephone with an RJ-11 jack. With AT&T's Enhanced Fax, you set up your own electronic mailbox in an AT&T central switching office. You can send faxes to and receive faxes in that mailbox via any other fax machine. Thus, you can receive faxes on your "home" fax when you're on the road just by dialing in to your mailbox from a hotel or office fax machine.

What else? Because fax technology is so standardized, and the market is crowded with manufacturers looking to set themselves apart, one thing is sure: You will get more features for less money. ■

# First Annual Best Home-Business Contest

*Be One of 60 Winners to Cash In on Over \$20,000 in Great Prizes*

**T**he search is on for the best home-based business. Just tell us about yourself and you could win one of sixty prizes worth a total of more than \$20,000.

Entering is easy: Just fill out a short entry form and include a profile of your business (see below for more details). Big profits and revenues aren't necessarily what we're looking for. We care more about your business smarts and your drive to succeed. You'll also score big points with us if you've successfully incorporated technology into your home business.

Mail your entries by November 15, 1990, to Best Home Business Contest, HOME-OFFICE COMPUTING, 730 Broadway, New York, NY 10003. As an incentive to respond quickly, the first 500 entrants will receive the *Fuji Home-Office Guide* and \$150 worth of discount coupons for home-office supplies and accessories.



**CompuAdd SX Success Kit:**

- 316S 386SX computer with 40MB hard-disk drive, color VGA monitor, and mouse
- 24-Pin Panasonic printer
- Windows 3.0, Paint-Show Plus, PC-FullBak, MS-DOS v4.01, DOS Help
- Computer paper, 10 blank disks, and a Smart Start Kit of software demos and special offers
- Hewlett-Packard LaserJet III printer; Intel Above Board Plus 8 memory board; Intel 387SX Math CoProcessor; Logitech ScanMan Plus handheld scanner; and a SomaShield antiglare monitor screen



Toshiba T1200XE laptop computer



Ricoh RF-920 fax machine; Hayes 2400-bps modem; six-month subscription to Prodigy Service; and a SomaShield antiglare screen



Fujitsu dex 150 fax machine and an Intel 2400EX modem

## CONTEST

### \$1,200 FOURTH PRIZE



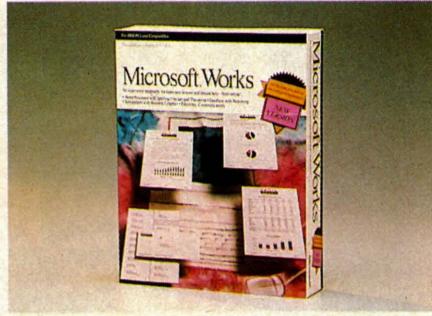
Tandy 2130 dot-matrix printer

### \$1,000 FIFTH PRIZE



Intel Connection CoProcessor fax board and a DFI Handy Scanner 3000 Plus

### \$150 SIXTH PRIZE (10 Winners)



A choice of either Microsoft Works or Microsoft Windows

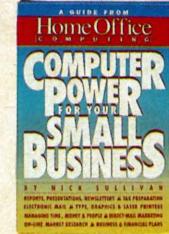
### SEVENTH PRIZE (20 Winners)

A Fuji Home-Office Bonus Pack; \$40 value

- The 24-page booklet The Fuji Home-Office Guide
- More than \$150 worth of coupons for discounts on home-office supplies and accessories
- 20 floppy disks



### RUNNERS-UP (25 Winners)



A copy of the new book Computer Power for Your Small Business: A Guide from HOME-OFFICE COMPUTING; \$23 value

## BEST HOME BUSINESS CONTEST ENTRY FORM

### HOW TO ENTER?

1. Complete the entry form and attach it to your essay.
2. Give us a profile (maximum 1,200 words) of your business, and be sure to include the following:
  - A. Why you started your own business at home
  - B. How you started and financed your

### CONTEST RULES

1. To qualify, your entry *must* be a computer printout of no more than 1,200 words (about five pages double-spaced).
2. Include a photo of yourself in your home office.
3. Include your address and telephone number.
4. All entries and photographs become the property of HOME-OFFICE COMPUTING. However, material will not be used in future publications and promotions without the prior consent of the entrant.
5. Scholastic Inc. employees, advisory board members, and members of their families are ineligible.
6. No cash substitutes for prizes.

**DEADLINE:** All entries must be postmarked by November 15, 1990.

**JUDGES:** All entries will be judged by HOME-OFFICE COMPUTING editors and advisers.

**WINNERS:** Winners will be announced in the May 1991 issue of HOME-OFFICE COMPUTING.

business

- C. An explanation of past growth and potential for future expansion
- D. How you use technology to run your business
- E. Your techniques for market research and publicity, and how you adapt to current market trends
- F. A discussion of the advantages and drawbacks of working out of your home

**G.** A description of the physical layout of your home office

**H.** How you integrate/separate family and business affairs

**I.** Information about any partners or employees

**J.** Any supporting materials (brochures, business cards, press releases, newsletters, samples of your product) that might help your entry

**YOUR NAME &** \_\_\_\_\_

**BUSINESS TITLE:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**TELEPHONE:** \_\_\_\_\_

**BUSINESS NAME:** \_\_\_\_\_

**TYPE OF BUSINESS:** \_\_\_\_\_

**NO. OF YEARS IN BUSINESS:** \_\_\_\_\_

**LIST THE COMPUTERS AND EQUIPMENT YOU USE:** \_\_\_\_\_

**LIST ALL SOFTWARE AND ON-LINE SERVICES YOU USE:** \_\_\_\_\_

**APPROX. ANNUAL PROFITS\*:** \_\_\_\_\_ **APPROX. GROSS ANNUAL INCOME \*:** \_\_\_\_\_

\*Income and product information will be kept in strict confidence unless entrant gives permission for release of figures.

# How to Learn Any Program *Your Way*



ILLUSTRATION BY KIM DREW

**Here's What to Do When the Documentation Isn't Right for You. With a Complete Shopper's Guide to Books, Disks, Videos, Audios, Classes, and Trainers**

BY CHARLOTTE PIERCE

**I**had all but nailed down my first major book-editing job, when the prospective client informed me, "We usually have our editors put the pages into our *Ventura Publisher* style sheet."

My heart sank. With minimal exposure to *Ventura* at my previous job, I dreaded the prospect of taking time from my busy schedule to learn the ins and outs of this new application while trying to produce my

first job on deadline. Although clear enough, *Ventura*'s tutorial looked formidably comprehensive. I wanted to learn what I needed to know about the program in order to get that book contract—and learn it in five minutes or less! I encountered a situation common to business-software users: Extensive as it may be, a program's documentation is not necessarily tailored to the way a particular individual learns software.

## I DID IT MY WAY—YOU DO THE SAME

As it turned out, I landed the editing job, and the client, Benchmark Productions, handled the *Ventura* page formatting. But the experience made me wonder: Would I be versatile enough to handle future Benchmark projects and other jobs of this nature? I started looking around for ways to master *Ventura*—my way.

A class, I thought. That's it! I can always learn in a classroom setting. Not necessarily. A four-hour, \$40 users' group workshop yielded an overload of details I promptly forgot. I already knew what the program looked like; now, I needed something that offered hands-on experience. I finally found it when Chris Williams, Benchmark's director, offered to let me observe his assistant working with *Ventura*.

But how do you identify and satisfy your own unique learning requirements? Is there a single best way to get up and running on productivity software, or should you try a combination of methods? How much should you expect to spend on additional training? How can you pick the most effective book from among the hundreds on bookstore shelves? Which tutorials work? How can you know in advance if a class or workshop will be worth the money? When are the manuals and tutorials that come with the software effective, and when do they fall short? Above all, how can you get the most from the time and money you invest and make the knowledge stick?

Facing these questions may leave you in a tight spot if you've got a job to do, new software to learn, and a deadline to meet. The good news is that most reputable software publishers now recognize the wisdom of publishing clear, tested tutorials, on-line help, and printed documentation. In the past few years, such companies as Microsoft, Aldus, Ashton-Tate, and Lotus have launched major documentation-reform efforts. Many people may not ever need extra training materials.

Still, you must take a different tack if you find that the supplied documentation is inappropriate for your style of learning. You're not alone—the quest for accurate, practical examples and better indexes, illustrations, and organization has driven many of us to look beyond the fat manuals and tutorials that come bundled with our software to other books, video- and audiotapes, interactive disk-based tutorials, consultants, and training classes.

## WHAT'S UP WITH THE DOCS?

The abundance of supplementary training materials for popular programs may point as much to a variety of learning styles as it does to deficiencies in documentation (not to mention the third-party producers' recognition of a ready market).

Even so, software publishers definitely have a reputation to shake—or to polish up. Like many software users, Ralph Platt, a Los Angeles designer of automated photolab systems, objects to manuals that contain dense, technical terminology, an assumption of advanced knowledge, poor indexing, and illogical organization.

"At times, I feel like the software publishers' approach has been, 'Why bother to produce an expensive manual when we already have the buyer's money,'" says Platt. "I've found some of the worst and some of the best technical writing in the various software user's manuals I've read."

As much as we take potshots at software documentation, we can take comfort in the fact that it has gained quantum leaps in quality over the past several years. Time was, you hauled a single, huge manual out of the box when you bought a desktop-publishing program. It's a sign of the times that a program like *PageMaker* now comes with six separate documents: an Installation Guide, a User's Guide, a friendly Getting Started Manual for total newcomers, a Reference Guide for technical material, a

mind reading—does just fine with an overview workshop or one-day course, then picks up the program's documentation or a good book on the program for subsequent spot-learning.

**2.** The impatient but fast learner who hates reading—does well using a disk-based tutorial or a video- or audiotape (but has problems with a book tutorial, where you have to look back and forth between the page and the screen).

**3.** The computer novice who doesn't mind being taught at the same speed as others—does best in a classroom environment.

**4.** The person who needs specialized training—finds individual instruction or advanced classes most effective. Some people need training suited to their pace, because either they don't have a natural instinct for computers or they must get right to the heart of an application. A good example is the salesperson who doesn't have the time to spend in a classroom learning everything about Lotus but needs to figure monthly cash flow.

"If I were to pick up a new productivity package today and try to learn it," Sullivan advises, "I would first follow, step by step, any printed or disk-based tutorial that came with the software. Whenever I'd encounter a new topic or subject, I would read about that subject in the reference manual and strengthen my working knowledge of the product. Then, I would attempt to apply the product to my world, keeping a running tally of all the questions and problems I was having. Finally, I would seek out a person knowledgeable about the product and get one-on-one instruction, using my questions as a guide to the training process."

Sullivan says that users' groups—"or a professional trainer who doesn't mind losing a customer"—are among the best sources of recommendations about such individual, at-home training tools as books, disks, and videos.

## INTERACTIVE HELP

The benefits of interactive disk-based tutorials are easy to see—no other at-home training method shows you the software in action as you work with it. When interactive tutorials come with the application program, it's a blessing; but more often they're absent. That's why several companies specialize in software-based training, often combining disks with audio- or videotapes and workbooks (see next section, "A Shopper's Guide to Software Training"). But quality and consistency can be a problem.

"I tried one DOS tutorial disk because I had a good experience with the same pub-

## Which method you choose depends largely upon your personality and how you assimilate new information.

Fontware Installation Guide, and Release Notes—plus help screens, error messages and prompts, and README files (files on distribution disks that give information and changes made too late for printing in the manual). Manuals may not make the best fireside reading, but they are much more bearable than they once were.

However, if you are among the legions who do not, cannot, or will not learn from the manuals included with *PageMaker*, *WordPerfect*, *1-2-3*, *dBase*, and other major applications, what do you do? Let's look at your options for learning.

## FOUR LEARNING STYLES

Which method you choose to learn software depends largely upon your personality and how you assimilate new information. Tim Sullivan, owner of Computers Don't Byte, a Los Angeles-based software-training company, has identified four main types among his students:

**1.** The fast, thorough learner who doesn't

Boston-based writer and editor CHARLOTTE PIERCE will go to great lengths to find a shortcut.

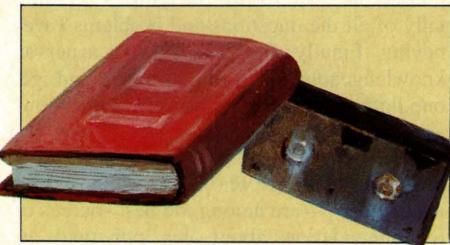
lisher's backup software," says Rowby Goren, a television scriptwriter in Southern California. Goren thought the tutorial would be equally good, but was disappointed.

Home-based landscape contractor Joe Luma has explored a number of avenues for mastering the accounting, database, and graphics software that he uses to design landscapes and do his monthly billing. He finds interactive computer-based tutorials one of the most effective ways to grasp a program's look and feel.

"I usually get started with the tutorial, then put it away about halfway through and start using the program. I even tried a spreadsheet tutorial, a game based on the Indiana Jones series, which really helped me get the feel of *Quattro Pro*. But the learning method I really find most valuable is CompuServe. When I have a specific question about *Quattro* or [the] *PFS* [series], I get an answer right back from someone on the forum. That's often more effective than technical support, and much quicker than going through a tutorial, if you have a specific question."

## HIT THE BOOKS

Books are portable, familiar, can be used in private, and are the software learner's most common alternative to publisher-furnished documentation. But since documentation is improving and you can always recreate the tutorial examples in your own application, why do people continue to buy



outside books? Everyone knows that some books replicate the missing documentation for illegally pirated software, but there are still plenty of legitimate reasons for looking to third-party documentation.

First, an author can bring his or her unique experience and perspective to a book. Second, since most reputable publishers don't aim to replace the manuals' exhaustive technical details, they can lay out their chapters in a manner that's better designed for learning or targeted to a specific task. Third, and perhaps most important, you can get books based on your level of knowledge. If you're new to computers, you can flip through a book and see how accessible it seems. You may find information in one book missing in another, or a second book that zeroes in on a particular need for a particular application. For example, television writer Goren bought Daniel Will-Har-

ris's *WordPerfect: Desktop Publishing in Style* when he wanted to learn more about the desktop-publishing aspects of *WordPerfect* 5.1. "Good books can explain your specific area of interest, while manuals usually explain everything about an application, even things you don't want or need to know," Goren emphasized.

## THE MESSAGE IN THE MEDIA

If you like classroom learning but can't get to a class, video and audio training tools might be your answer. Although recordings are harder to find than printed materials and can cost much more, tapes can emulate a classroom situation and go it one better: They talk to you. They often come with interactive disks and workbooks. And they won't walk out of your life like a consultant or teacher will—you can rewind, replay, and relearn. People who have been burned on bad audio- or videotapes strongly advise getting a recommendation from a friend or users' group before committing to an expensive purchase. Videos and multimedia courseware may be more cost-effective if you share them with friends, a computer club, or your company's staff, since such materials are quite expensive.

Plenty of self-taught software users champion the benefits of tape training. Scranton-area marketing consultant and graphic designer Laura Douglas sees both sides of the issue. "Training videos, like person-to-person training, can be expensive. I find personal interaction much more beneficial, but on the other hand, by the time I need much of the information, it has been forgotten and must be sought out again. You can always pick up a tape and run it again."

Self-taught desktop publisher Rafael Bullrich, who works with *Ventura Publisher* and other applications in his home office in Montreal, Quebec, also provides individual software consulting and training to companies and individuals. As a trainer, he was at first reluctant to admit that software videos had learning value. "But I have seen some very good software videos out there," Bullrich concedes, "both by third-party developers and by the software publishers themselves, and I can now see that some people truly learn well with them. For example, a colleague of mine uses and recommends the training video that comes bundled with *Corel Draw*."

## BACK TO SCHOOL

Now you've tried everything. Books just sit there. Videos are expensive and inconsistent in quality. Interactive disks and audiotapes don't run at your pace. You need to hear it from a live person. But even if you've determined that you learn best in a classroom or in a one-on-one situation, you're still faced with a host of questions.

Where do you find the right courses? How much will they cost, and will they meet when your schedule allows? How can you know you're picking the best course?

In selecting a course or trainer, software trainer Tim Sullivan recommends: "If it's going to be a major investment, ask the center to send you a course overview, and definitely ask for referrals. For some applications, you won't be able to find specific training centers, but you can call around to other authorized training centers and see if they offer courses for your software."

The cost of training varies from region to region in the United States and Canada, says Sullivan. In Southern California, for example, training for an application such as *Lotus 1-2-3* typically costs \$150 for a four-hour class. Some trainers offer as much training as you want for six months for \$500.

"Don't try to take more than a few hours of training in one sitting," he cautions. "And don't take three classes, three days in a row. Go back and use the program for a few days on a real application. Then, go back for your next class, and you'll be ready to take in a lot more. Odds are, though, the instructor won't tailor the class to you."

## THE EASIER THE SOFTWARE, THE LESS YOU NEED TO LEARN

One way to solve the problem of training yourself on complicated applications may be to avoid complicated applications. If you're afraid of wasting your money on expensive books, classes, videos, or other training materials, it is imperative to find intuitive, easy-to-use software. Rule of thumb: Don't buy it if you don't need it.

Ease of use is paramount when Joe Luma chooses the productivity software he uses to manage his Concord, California, landscape-contracting business. "I am a designer. If I were working with the computer full-time, it would be different. But for me, complicated software takes too long to learn and is too soon forgotten," Luma admits. "And this is a two-person show; we don't have a separate bookkeeper or systems manager. I get plenty of recommendations before purchasing and don't buy difficult software, no matter how fancy it is or how well it works."

## SHORTCUTS TAKE TIME

Some of us will always hold out hope for instant gratification, but in my quest to learn software I've found no magical shortcuts. In the process of learning *Ventura Publisher*, I've tried most of the methods discussed in this article at one time or another. There's probably no getting around it—part of the investment in software is the time you absolutely need to spend starting up and mastering the program. But it's an investment that always pays off, helping you become more self-sufficient with your computer. ■

# A Shopper's Guide To Software Training

## Resources for Books, Disks, Tapes, Classes, and On-Line Help

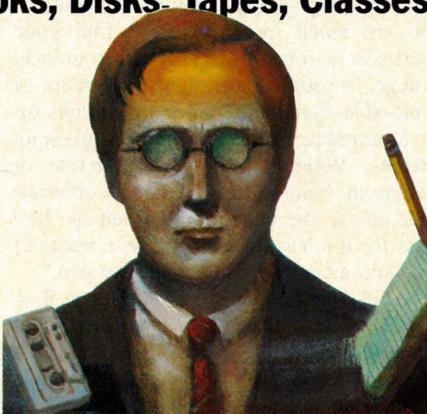
The following lists are selections of independent software-training-tool publishers who either work in conjunction with major software publishers or are known to produce reputable, up-to-date materials. You will find a certain amount of crossover among these firms: Some book publishers produce interactive disks, for instance, and audio- and videotape publishers often package disks and workbooks with their products.

Call or write for a product catalog to learn all the options available for your system and to get a sense of the publishers' software and systems specialties. A publisher who produces several training tools for MS-DOS software and only one for the Macintosh is clearly more experienced with DOS (and vice versa). However, many publishers produce training materials for both MS-DOS and Mac software (as well as for OS/2-based programs). So publishers who lean heavily in one direction will be marked below as follows: "[MS-DOS]" or "[Mac]."

In addition, the most popular software packages are by far the ones most represented with training materials. These programs include *Agenda*, *dBase III/IV*, *DisplayWrite*, *Excel*, *HyperCard*, *Lotus 1-2-3*, *Managing Your Money*, *Microsoft Word*, *Microsoft Works*, *MultiMate*, *PageMaker*, *Paradox*, *Quattro Pro*, *Quicken*, *R:Base*, *Symphony*, *Ventura Publisher*, *WordPerfect*, *WordStar*, and MS-DOS itself. While not all-inclusive, this list includes most programs for which training materials are produced. If you need help with a program that is not listed, call the program's publisher about third-party training materials. Or contact one or more of those third parties listed below.

### DISK-BASED TUTORIALS

Simply because floppy disks can't be picked up and read like books, it is harder to judge the value of computer-based tutorials. However, there are several ways to make an educated choice—just as you did when you bought the major application you're trying to learn. First, you might go to a software store where you can see the tutorial in action. Egghead, Computerland, Businessland, and other retail stores across the country often have machines up and running, and most will let you preview a tutorial.



Or call one of the publishers listed below and ask for a free demo disk or a user referral. For example, ATI, a publisher of computer-based tutorials, offers a Software Sampler that gives you a taste of its product line. If you subscribe to CompuServe or GEnie, log on to the specific forum or roundtable for your application and scan the libraries for tutorials, or send a general message asking for recommendations.

If a disk-based tutorial's interactivity appeals to you, try to find a program that works like Microsoft's exceptional *Learning DOS* (also available in a video version)—one that lets you go backward, zip forward, repeat or skip lessons, and mark those you've completed. Unfortunately, some training disks are simply too rigid.

Note that many interactive disks come with printed materials such as a workbook or tutorial. Some disks, such as a few from ATI, include video training as well.

**Accelerated Computer Training**, 3255 Wilshire Blvd., #903, Los Angeles, CA 90010; (213) 388-0551. \$795. [MS-DOS]

**American Training International (ATI)**, 12638 Beatrice St., Los Angeles, CA 90066; (800) 955-5284, (213) 823-1129. \$30-\$295. [MS-DOS]

**DSI Micro Inc.**, 770 Broadway, New York, NY 10003; (800) 443-7432. \$50-\$200.

**Geyser Electronic Publishing Ltd.**, 26 Broadway, Suite 400, New York, NY 10004; (800) 361-7273. \$20-\$50.

**Heizer Software**, P.O. Box 232019, Pleasant Hill, CA 94523; (415) 943-7667, ext. 208, \$8-\$25.

**Individual Software**, 125 Shoreway Rd., San Carlos, CA 94070; (415) 595-8855. \$30-\$70.

**Intellisance**, 1885 Lundy Ave., San Jose, CA 95131; (408) 432-0430. \$70-\$180. Also video (\$400-\$12,000). [MS-DOS]

### BOOKS

As a rule of thumb, try to get other people's recommendations before buying a software tutorial book. Also scan the author's credentials and previous publications—you should find these in the front or back of the volume. Bookstore salespeople may have a vested interest in selling books, but they also have a vested interest in developing loyal customers; their opinions are a valuable resource when you're faced with a shelf containing dozens of titles for a single application. As you browse, look for sections that offer help with problems you might be having with the program. Books for learning software generally retail from \$10 to \$50. Also note, some book publishers have come out with book/disk packages. However, in contrast to disk-based tutorials, the disks in these products typically work as a supplement to the book rather than being the main course.

**Abacus Books**, 5370 52nd St. SE, Grand Rapids, MI 49512; (800) 451-4319. [MS-DOS]

**Addison-Wesley Publishing**, Route 128, Reading, MA 01867; (617) 944-3700.

**Bantam/Doubleday/Dell**, 666 Fifth Ave., New York, NY 10103; (212) 765-6500.

**Brady Books**, 15 Columbus Circle, New York, NY 10023; (212) 373-8142.

**Chilton Book Co.**, One Chilton Way, Radnor, PA 19089; (215) 964-4743.

**Compute! Books**, 324 West Wendover Ave., Greensboro, NC 27408; (919) 275-9809.

**Howard W. Sams Publishing/Macmillan Publishing**, 4300 W. 62nd St., Indianapolis, IN 46206; (800) 257-8247, (317) 298-5400.

**John Wiley & Sons**, 605 Third Ave., New York, NY 10158; (212) 850-6000.

**Microsoft Press**, One Microsoft Way, Redmond, WA 98052; (800) 888-3303, (206) 882-8088.

**Osborne/McGraw-Hill**, 1221 Sixth Ave., New York, NY 10020; (800) 227-0900.

**Que Corporation**, 1711 N. College Ave., Carmel, IN 46032; (317) 573-2500.

**Peachpit Press**, 1085 Keith Ave., Berkeley, CA 94708; (415) 527-8555, (800) 283-9444.

**Sybex Inc.**, 2021 Challenger Dr., Alameda, CA 94501; (415) 523-8233. [MS-DOS]

**TAB Books, Inc./McGraw-Hill**, 11 W. 19th St., New York, NY 10010; (212) 337-6015, (800) 822-8158.

### AUDIO- AND VIDEOTAPES

If you suspect that instructional tapes are the right way to learn but you've never tried them, how can you be sure? When choosing

video- or audiotapes, use the same basic process as you would shopping for software or other training methods: Gather recommendations from friends, users' groups, software publishers, and reputable dealers, and—if you can—try before you buy. You might also be able to rent software videos at your local video store.

"In training videos, I just try to teach the basics, with a little humor thrown in," says television writer Rowby Goren, who also occasionally writes and produces computer-tutorial videos for his local public-access cable television station in west Los Angeles. "And to my surprise people actually watch them—and tell me they learn from them. People can also find reviews of video tutorials and outside books in the monthly newsletter of the *WordPerfect* Support Group, which can be accessed on CompuServe by typing 'GO WPSGA.' If I were to look for videos to learn *WordPerfect*'s line of software, I'd check there first."

**Anderson Soft-Teach**, 2680 North First St., Suite 100, San Jose, CA 95134; (408) 434-0100. Video; \$495-\$895.

**Computer Training Resources, Inc./VideoTutor**, 110 Wild Basin Rd., Suite 280, Austin, TX 78746; (512) 328-3721. Video; \$195.

**Cliptrack Learning Systems**, 999 Main St., Glen Ellyn, IL 60137; (708) 790-1117. Audio; \$99-\$195.

**Interactive Training Technologies (ITT)**, 5289 NE Elam Young Parkway, Hillsboro, OR 97124; (503) 681-0343. Audio/disk; \$300-\$600 (ProActive Player required; \$249). [MS-DOS]

**Learn Key**, 93 S. Mountain Way Dr., Orem, UT 84058; (801) 224-8210, (800) 937-3279. Video; \$50-\$100.

**Learn PC Video Systems**, 5101 Highway 55, Minneapolis, MN 55422; (612) 544-4500. Video/disk/workbook; \$495-\$1,395. [MS-DOS]

**M-USA**, 17440 N. Dallas Parkway, Suite 207, Dallas, TX 75287; (800) 421-5355. Video; \$25. [MS-DOS]

**MacAcademy**, 477 S. Nova Rd., Ormond Beach, FL 32174; (904) 677-1918. Video; \$50. [Mac]

**Micro Video Learning Systems**, 91 Fifth Ave., Suite 600, New York, NY 10003; (212) 255-3108, (800) 231-4021. Video/disk/workbook; \$500-\$700. [MS-DOS]

**Personal Training Systems**, 828 S. Bascom Ave., San Jose, CA 95128; (408) 559-8635, (800) 832-2499. Audio/disk; \$80. [Mac]

**TeachWare**, P.O. Box 77, Hollidaysburg, PA 16648; (814) 696-2530, (800) 533-5707. Audio/disk/workbook; \$25-\$100. [MS-DOS]

**Training Specialties, Inc.**, P.O. Box 5000, Solana Beach, CA 92075; (619) 481-4858. Audio/disk/book and video/disk/book; \$98-\$298. [MS-DOS]

**Video Professor Industries**, 165 S. Union, Suite 1050, Lakewood, CO 80228; (303) 988-3122. Video; \$30.

## CLASSES AND PERSONAL TRAINERS

High-priced software consultants and trainers may be effective, but many tailor their services to corporate clients who can afford their steep fees. In major cities, con-

sultants' rates can start at \$50 per hour and range up to several hundred dollars for a day's class. If you find a consultant who advertises rates of less than \$50, it is possible that his or her expertise may lie in more basic skills—and that may be just what you need, say, for learning the basics of MS-DOS or learning enough about databases to make a purchasing decision.

If you can give up the individual attention, you are much more likely to find good courses at reasonable rates through your local college, vocational school, users' group, or adult-education center. Such institutions often offer reduced rates for students and senior citizens. Whether you choose private or classroom training, however, get referrals first, advise the once-bitten—even the best class for the least money can be a waste of time and money if it's not right for you.

David Bradley, director of training at Boston's Datacorp, an authorized training center for applications by Aldus, Xerox, Lotus, Claris, and other publishers, advises people to look for training centers that send you home with sample files and tutorials and offer telephone support after the fact, when you may have forgotten some essential details. "We find that our clients call us before they call the software company support line, just because it's quicker and less complicated," he notes. "And we find that most people don't overdo it either. In general, I'd say 50 percent of the software training centers out there offer follow-up support. Some are smaller operations that don't have extensive resources." Bradley adds that most reputable training centers will refer you to former clients.

Even if the publisher of your software isn't listed below, the following companies can give you a list of authorized training centers, many of which offer training for a wide range of applications from other publishers.

**Aldus Corporation**, 411 First Ave. S., Seattle, WA 98104; (206) 628-2320. Software: *Page-Maker, Freehand*. Two-day courses; \$495.

**Ashton-Tate**, 20101 Hamilton Ave., Torrance, CA 90509; (213) 538-7338, (800) 227-4866. Software: *dBase, Draw Applause, Framework, Full-Write, Full Impact, MultiMate, RapidFile, SQL Server*. Two- and three-day courses; \$350-\$750.

**Claris Corporation**, 5201 Patrick Henry Dr., Santa Clara, CA 95052; (408) 727-8227. Software: *FileMaker Pro, MacProject II, MacWrite II, MacDraw II, MacPaint II, Claris CAD, SmartForm*. 90-minute to half-day courses; Free-\$100. [Mac]

**Keey Systems Inc.**, 6460 Dobbins Rd., Columbia, MD 21045; (301) 740-0110. Computer-assisted training at ComputerLand, MicroAge, Inacomp Computer Centers, Tandy Learning Centers, and other computer retail stores. Software: *WordPerfect, Lotus 1-2-3, DisplayWrite, Microsoft Word, WordStar, MultiMate, dBase, MS-DOS, OS/2*. Self-paced courses (average six to eight hours); \$195. [MS-DOS]

**Lotus Corporation**, 161 First St., Cambridge, MA 02142; (617) 577-8500, (800) 343-5414.

Software: *Agenda, 1-2-3, Symphony, Manuscript, Metro*. Time and prices vary. [MS-DOS]

**Microsoft Corporation**, One Microsoft Way, Redmond, WA 98052; (800) 426-9400, (206) 828-1507. Software: *Excel, Word, Windows*. Time and prices vary.

**WordPerfect Corporation**, 1555 N. Technology Way, Orem, UT 84057; (800) 451-5151, (801) 225-5000. Software: *WordPerfect*. Time and prices vary.

**Xerox Corporation**, 800 Long Ridge Rd., Stamford, CT 06904; (800) 445-5554. Software: *Ventura Publisher*. Two-day courses; \$245-\$425. [MS-DOS]

**XyQuest**, 44 Manning Rd., Billerica, MA 01821; (508) 671-0888. Software: *XyWrite III*. Time and prices vary. [MS-DOS]

## ON-LINE RESOURCES

More and more major software publishers maintain on-line forums (CompuServe's word) or roundtables (a GEnie term) as support mechanisms for their products. These are often great places to ask specific questions about your software, with intelligent answers from the source. Other on-line forums exist for specific computer systems, such as MS-DOS; and they're also good places to post questions and get informed (and often impassioned) answers from other users.

**CompuServe Information Service**, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220; (800) 848-8199, (614) 457-8600. Start-up fee: \$40. Connect time: \$6/hour (300 baud); \$12.50/hour (1200 or 2400 baud). All times.

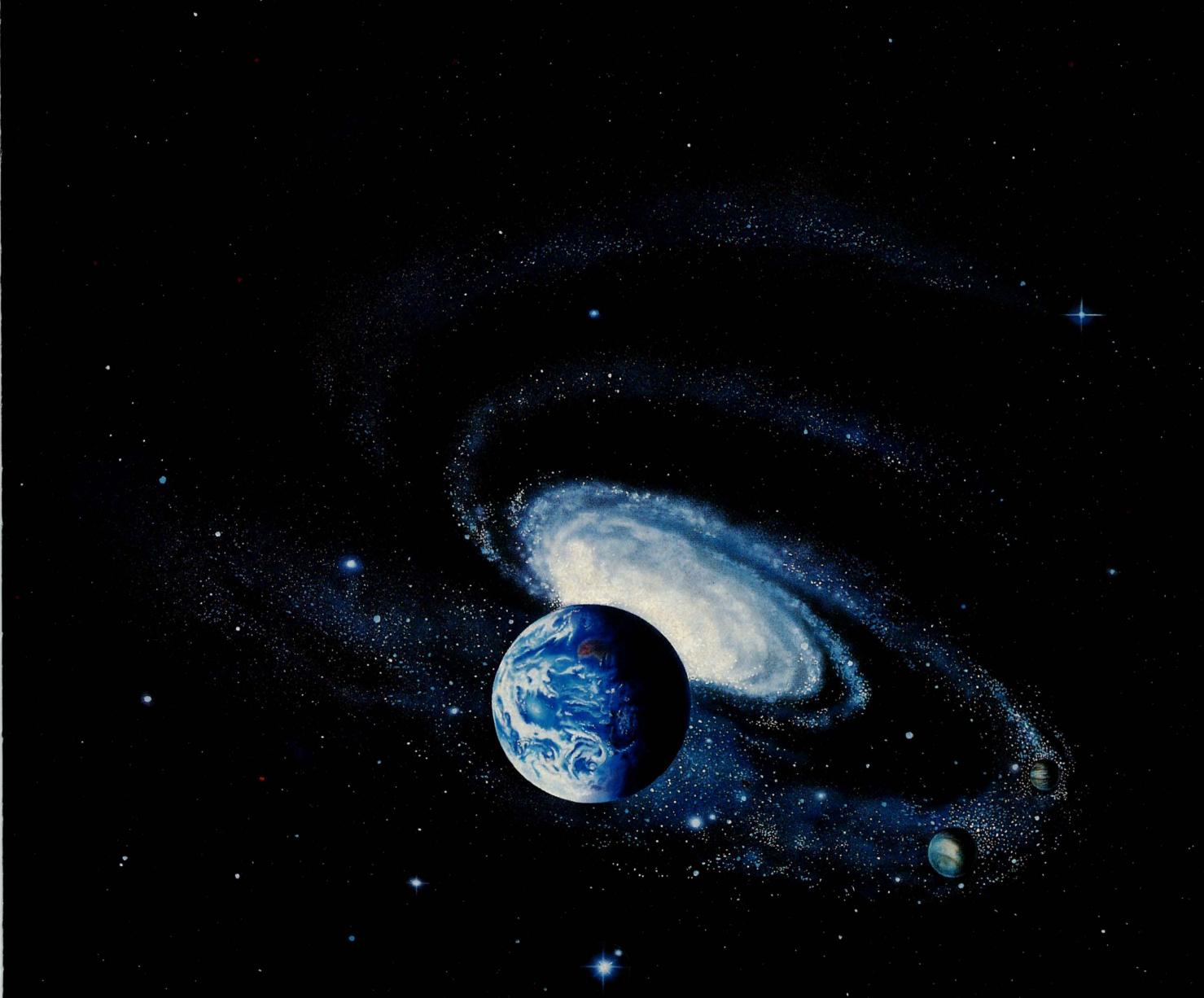
**Delphi Information Service**, Three Blackstone St., Cambridge, MA 02139; (617) 491-3393. Start-up fee: \$30. Connect time: \$17.40/hour (7:00 a.m.-6:00 p.m., Mon.-Fri.); \$7.20/hour (6:00 p.m.-7:00 a.m., Mon.-Fri., and all day Sat. and Sun.).

**GEnie Network**, GE Information Systems, 401 N. Washington St., Rockville, MD 20850; (800) 638-9636 (voice), (800) 638-8369 (modem). Start-up fee: \$30 (includes \$10 in usage credit). Connect time (6:00 p.m.-8:00 a.m., Mon.-Fri., and all day Sat. and Sun.): \$5/hour (300 baud); \$6/hour (1200 baud); \$10/hour (2400 baud). Connect time (8:00 a.m.-6:00 p.m.): \$18/hour.

**Prodigy Interactive Personal Service**, Prodigy Services Company, 445 Hamilton Ave., White Plains, NY 10601; (914) 993-8000, (800) 767-3664, ext. 205. Start-up fee: none. Connect time: \$10/month, unlimited use.

**PCLink, Quantum Computer Services**, 8619 Westwood Center Dr., Vienna, VA 22180; (800) 392-8200, (703) 448-8700. Start-up fee: none. Connect time: \$9.95/month, plus either 15¢/minute (6:00 a.m.-6:00 p.m., Mon.-Fri.) or 10¢/minute (6:00 p.m.-6:00 a.m., Mon.-Fri., and all day Sat. and Sun.). ■





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### Hyundai Super-386C

Rating: ★ ★ ★

**AT A GLANCE:** A solid, no-frills 20-MHz 386 DX system in a space-saving design.

**DOCUMENTATION:** Gets you started, but nothing fancy.

**SETUP:** Relatively easy; menu-driven Phoenix Technologies System Configuration in ROM.

**EASE OF USE:** Nothing noteworthy here.

**VALUE:** Deep discounts available on complete systems make this a good value.

**SUPPORT:** The longer-than-usual warranty (18 months) is a plus, and 24-hour, on-site service is available as a reasonably priced option. Support is through dealers.

**LIST PRICE:** \$3,785 (complete color VGA system)

**MANUFACTURER:** Hyundai Electronics America, 166 Baypoint Pkwy., San Jose, CA 95134; (408) 473-9200

**MICROPROCESSOR:** 20-MHz 80386 DX

**MEMORY:** 1MB, expandable to 8MB on motherboard

**DISK DRIVES:** 40MB hard-disk drive; 5.25-inch 1.2MB floppy-disk drive

**PORTS:** 1 parallel, 1 serial

**AVAILABLE EXPANSION SLOTS:** Two 8-bit, two 16-bit, one 32-bit proprietary memory slot

**SOFTWARE INCLUDED:** DOS 3.3, GW-BASIC, system utilities

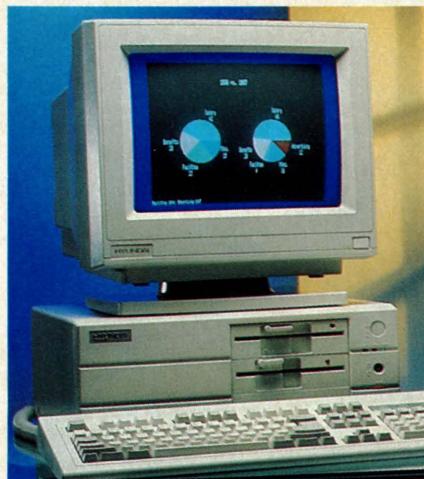
**DISPLAY:** 16-bit VGA; color monitor

**DIMENSIONS:** 16.5 by 15.9 by 6.5 inches

**WARRANTY:** 18 months

Hyundai's Super-386C is a high-profile, small-footprint computer (that is, the system unit is somewhat taller and somewhat narrower than a standard case) with plenty of growing room inside and enough speed to get most computing jobs done efficiently.

The Super-386C lacks the high-speed memory cache that is built into higher-performance systems. This omission is a trade-off: a 10 to 15 percent performance decrement versus significant dollar savings. Hyundai has opted to keep the price down. The Super-386C, thus, falls into a performance niche significantly above the level of



*Solid 386 system carries an 18-month warranty.*

the increasingly popular 16-MHz 386SX but significantly below that of cached 25- and 33-MHz systems. For graphics-intensive applications, I'd prefer one of the latter, but for most other business computing tasks, a system like the Super-386C should provide power to burn.

The system's front panel includes a power switch (but no power indicator), a keyboard lock, a reset button, and status lights for hard-disk access and 8- or 20-MHz operation. The three disk-drive bays are aligned in a single stack—in keeping with the taller-and-narrower-than-usual case design.

I did not care for the keyboard Hyundai supplies with this system (a Chicony 101-key enhanced model). The unit strikes me as flimsy, and I don't like the key touch, which lacks the degree of definiteness I have come to expect from a good keyboard. (Since the keyboard is the place where all work is done insofar as the computer user is concerned, I am a keyboard fusspot.) Actually, a year or two ago I probably wouldn't have complained, an indication that keyboards in general are getting better.

The small user's guide contains the basic start-up information, but it lacks an index and contains some amusing typographical

errors of the sort we used to expect from offshore translations. The three-ring MS-DOS and GW-BASIC manuals are stamped with Hyundai's logo, but they look vaguely familiar. They're generic products, adequate at best.

Remember that 20 to 30 percent discounts are normal in the stores through which Hyundai (and most other) computer systems are sold.

—HENRY F. BEECHHOLD

## Large Computing Power in Slender Package

### Northgate 320 MicroStation

Rating: ★ ★ ★ ★

**AT A GLANCE:** A well-engineered, fully equipped, handsomely designed midrange 386 DX system with super VGA video (800 by 600).

**DOCUMENTATION:** Everything is clearly explained; a handy quick-reference card is included.

**SETUP:** There is no setup, really, other than plugging in cables.

**EASE OF USE:** About as easy as any computer can be—aided by system utilities and DOS shell.

**VALUE:** One of the best desktop-computer values in the industry.

**SUPPORT:** Excellent; toll-free technical assistance 24 hours a day, 365 days a year; service under the one-year warranty is on-site in most parts of the country.

**LIST PRICE:** \$2,999 plus shipping (direct sales only, no discount)

**MANUFACTURER:** Northgate Computer Systems, Inc., One Northgate Pkwy., Eden Prairie, MN 55344; (800) 548-1993, (612) 943-8181

**MICROPROCESSOR:** 20-MHz 80386 DX

**MEMORY:** 2MB, expandable to 8MB on motherboard

**DISK DRIVES:** 1.44MB, 3.5-inch and 1.2MB, 5.25-inch floppy-disk drives, 40MB hard-disk drive (19 ms)

**DISPLAY:** 16-bit super VGA (800 by 600)

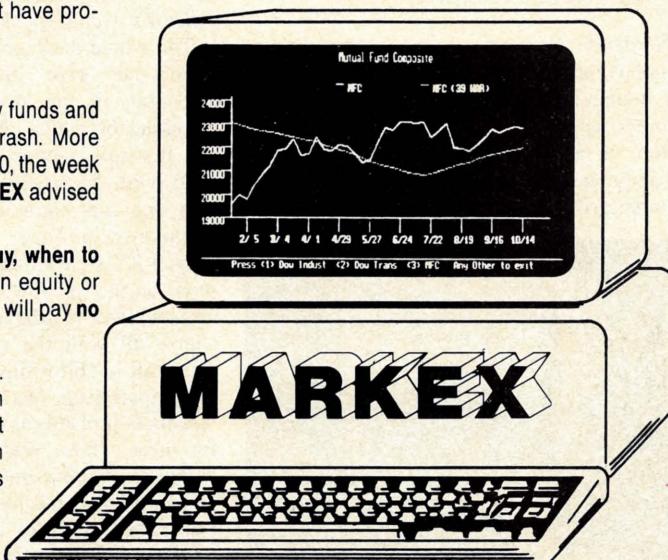
**PORTS:** Two serial, one parallel

**AVAILABLE EXPANSION SLOTS:** Two 8-bit, three 16-bit

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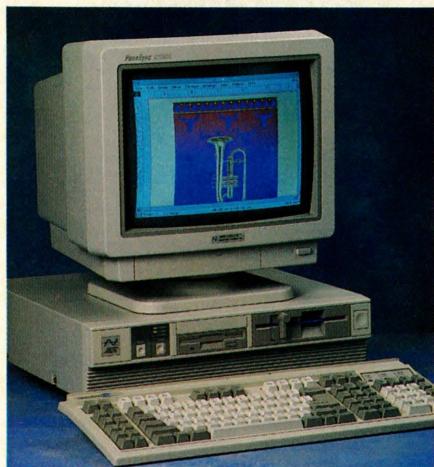
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**SOFTWARE INCLUDED:** DOS 4.01, GW-BASIC, Microsoft Windows 3.0

**DIMENSIONS:** 16.5 by 16.5 by 4.25 inches

**WARRANTY:** One year (five years on keyboard); 30-day money-back guarantee

Northgate Computer Systems has coupled massive advertising with fine design, outstanding dollar value, and extra-mile customer service to catapult itself into the position of a major player in the world of computer direct sales (mail order). I'm impressed.



This low-profile 386 boasts many design refinements—and the best PC keyboard around.

I am also impressed with the 320 MicroStation. I've tested a lot of microcomputer systems, but rarely have I encountered one that appealed to me as much as this. Attention to detail seems to have been a watchword in the design of this solidly built system. For example, the intelligent placement of the floppy-disk drives, side by side at the top of the low-profile case, means that you can easily slip disks in and out without having to move the keyboard (as I have to do to get at drive B on most other systems). The inclusion of both 3.5-inch and 5.25-inch high-density floppy disks further marks this as a complete system for serious users.

The front panel is furnished with status lights for power, hard-disk access, and oper-

## REVIEWED IN THIS ISSUE

### Computer Systems:

Hyundai Super-386C  
Northgate 320 MicroStation

### Fax Machine:

Sanyo Sanfax 520

### Laser Printer:

Star Micronics LaserPrinter 8II

ating speed and with buttons for power, operating speed, and system reset—everything that should be there. Cooling fan "rush" is audible but not obtrusive. The hard-disk drive's 19-ms access speed contributes to the system's overall quick performance.

The whole package looks and feels solid; there's no "give" in the connector when you plug in the keyboard, for example. Speaking of which, Northgate's keyboards are first-rate, better than any others I've used, with the possible exception of IBM's. The one that came with the system—the Omnikey Plus—has 12 function keys arranged XT-style along the left side and three more on the top row. If you don't like that arrangement, Northgate offers two other designs—all with the same excellent touch. The built-in 16-bit super VGA video is vivid and impressively fast.

This is probably not the system of choice for those whose work entails extensive or complex graphics-intensive operations. It lacks a high-speed memory cache and consequently runs 10 to 15 percent slower than a comparable system with a cache. However, the lower cost makes an attractive trade-off for people performing less demanding tasks.

Despite the possibility that the package's extras (*Windows* and super VGA) may not interest you, the 320 MicroStation looks like a bargain. I think it's reasonable to describe the system as a well-engineered midrange 386 DX at an SX price.

—HENRY F. BEECHHOLD

## New Star Printer Is Old at Birth

### Star Micronics LaserPrinter 8II

Rating: ★ ★

**AT A GLANCE:** Solid LaserJet Series II-compatible with Epson EX, IBM ProPrinter, Diablo emulations, but priced to compete with the LaserJet II rather than the much-improved, lower-cost LaserJet III.

**DOCUMENTATION:** Very good; tutorial included for start-up, printer settings.

**EASE OF SETUP:** A breeze.

**EASE OF USE:** Great; tutorial and emulations helpful.

**VALUE:** The big pitfall for any LaserJet II-compatible these days; fair.

**SUPPORT:** Fairly standard; telephone support available (you pay for the call), 8:00 a.m. to 4:00 p.m. Pacific time.

**LIST PRICE:** \$2,649

**MANUFACTURER:** Star Micronics America, Inc., 420 Lexington Ave., Suite 2702, New York, NY 10070; (800) 447-4700, (714) 768-3192

**TYPE:** Standard laser

**EMULATIONS:** HP LaserJet Series II, Epson EX-800, IBM ProPrinter, Diablo 630 ECS

**MAXIMUM PRINT SPEED, TEXT:** 8 pages per minute

**MAXIMUM RESOLUTION:** 300 dots per inch

**MEMORY:** 1MB standard, 5MB maximum

**RESIDENT FONTS:** Courier, Prestige, Times Roman, Lineprinter

**OPTIONS:** Seven font cartridges, LincPage (PostScript-compatible interpreter) with 35 scalable typeface outlines

**INTERFACE:** Parallel, serial

**PAPER HANDLING:** 200-sheet, letter-size cassette; optional Legal, A4, B5, Executive, envelope cassettes

**DIMENSIONS:** 17.9 by 19.4 by 8.6 inches

**WARRANTY:** One year

The Star Micronics LaserPrinter 8II epitomizes a current printer-industry dilemma. Star has done a nice job with the 8II (an upgrade of its earlier laser model), enhanc-



This laser printer's many emulations make it ideal for those using older software.

ing the usefulness of this fundamentally serviceable laser printer by providing emulations of Epson, IBM, and Diablo printers in addition to Hewlett-Packard LaserJet Series II compatibility. You should be able to get this printer to work with almost any software package, in almost any office environment. However, since the advent of Hewlett-Packard's LaserJet III, with its scalable fonts and improved image technology, the new Star is already "old technology," and it actually costs more than the LaserJet III.

Putting the comparison aside for a moment, the Star Micronics printer proved an admirable performer. I used it extensively in both LaserJet and PostScript modes (the re-

# TO ALL THE MEN AND WOMEN WHO DON'T WANT TO WORK FOR SOMEONE ELSE THE REST OF THEIR LIVES

This page is addressed to the thousands of hard working couples and individuals who want to own their own business. It's also the story of a 50-year-old couple who is now living the American Dream.

On August 7, 1981, George and Jeanie Douglass from Westfield, Indiana went bankrupt. On September 1, 1981, they borrowed money and bought a computer. With absolutely no computer training they started performing one service for businesses from the basement of their farm. Today, they are able to perform 18 services with their computer and their business does over \$12,000,000 per year.

As they became successful, other couples and individuals asked Jeanie and George if they could train them to do the same thing.

So, they developed methods to train these couples and individuals how to do what they were successfully doing. They designed easy-to-use software, hardware and training material that the average American with no previous computer experience can use. Couples and individuals are now earning \$4,000 to \$10,000 and more per month from their home without leaving the security of their present position.

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3. **How Are You Today?**—Your computer automatically calls the homebound up to 3 times a day to make sure they're OK.
4. **Help Alert**—It's a button that the homebound wear around their neck that they push in an emergency.



George and Jeanie Douglass

5. **Property Tax Reduction**—Show property owners how to reduce their property taxes and earn 50% of the savings.
6. **Bi-Weekly Mortgage Escrow**—Save homeowners \$70,000 on a \$100,000 30 year mortgage and earn a percentage.
7. **Personalized Children's Books**—You make each child a star with their own hardbound book with your computer.
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9. **Time, Weather and Lottery Telephone Number**—Earn \$1200 to \$1850 per month on one Time & Weather number.
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11. **Community Alert**—You provide a way to make emergency calls fast for municipality, government and schools.
12. **Voice Message Center**—You make a series of messages available 24 hours a day for churches, real estate, government agencies, etc.
13. **Voice Mail**—Show customers how to receive and answer calls on your computer 24 hours a day.

14. **Phone At Your Table**—You provide computerized telephones to restaurants for their customers to use at their table.
15. **30% AT&T Long Distance Phone Discount**—Show anyone how they can save up to 30% on their long distance phone bill—and earn a commission.
16. **Computer Appointment Verification**—We provide Doctors, Dentists, Chiropractors a way of eliminating their no show appointments.
17. **Manufacture-Sell/Rent Computers**—We manufacture our own computers. We will show you how to make your own. We provide training and parts. Plus, we will show you how to sell & rent computers in your hometown.
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view unit came with Star's LincPage Post-Script emulation), with a variety of software—Lotus 1-2-3, *WordPerfect* 5.1, Microsoft Word, *Ventura Publisher*, *Paradox*, and *PageMaker*—and got excellent results.

The LaserPrinter 8II is simple to set up. Just slip in the toner cartridge and the 200-sheet paper cassette, connect it to your PC with a serial or parallel cable (not included), plug it in, and you're ready to go.

If you need to change the emulation to get the printer to work with your software, you'll face one more step: using the control panel. Those who are familiar with HP's LaserJets should feel right at home with the Star's control panel—although there are more choices here because of the additional emulations and fonts. Those who aren't will need to spend some time with the manual, but really, it is quite easy to use.

Some software, such as *WordPerfect* 5.1, ships with special LaserPrinter 8 drivers, but the printer's LaserJet Series II compatibility really makes this superfluous. LaserJet drivers ran the printer flawlessly. The Epson EX-800, IBM ProPrinter, and Diablo 630 emulations are real assets if you have software that was written before the laser revolution.

The Star printer's print quality and speed are comparable to the LaserJet Series II's—not surprising, since they use the same Canon print engine. The LaserPrinter 8II provides more resident fonts than the Series II (including a Times Roman clone) and can use all downloadable soft fonts and software-based font generators designed for HP LaserJet printers. It cannot, unfortunately, use Hewlett-Packard font cartridges.

Having put the LaserJet III comparison aside for a moment, I must now return to it—and the dilemma. I liked the LaserPrinter 8II, but it's hard to escape the question, Why buy a nonstandard (non-HP) printer, when you can get the real thing for less? The only compelling reason I can see is to get the Epson and ProPrinter emulations.

—JOHN PALOMAKI

## Wide-Bodied Fax Is Great for Artwork

### Sanyo Sanfax 520

Rating: ★ ★ ★

**AT A GLANCE:** High-end, wide-capacity fax machine especially suited to sending graphic materials such as drawings, photographs, or magazine articles. Good halftone capability; three resolution

levels. Large display is a plus.

**DOCUMENTATION:** Poor. Many features are not explained properly.

**SETUP:** Easy for basic features. The machine is normally installed by a dealer.

**EASE OF USE:** No problems. You push the button, it works.

**VALUE:** By today's standards, value is only fair for users with general fax needs. But for those who specifically need this machine's special features, the price is justified.

**SUPPORT:** Through dealer or 800-number.

**LIST PRICE:** \$1,895

**MANUFACTURER:** Sanyo Business Systems, 51 Joseph St., Moonachie, NJ 07074; (800) 524-0047, (201) 440-9300

**COMPATIBILITY:** Group 3

**RESOLUTION:** Standard (203 by 98 dots per inch [dpi]), fine (203 by 196 dpi), and superfine (203 by 391 dpi)

**GRAY SCALE:** 16 levels

**MAXIMUM SIZE OF ORIGINAL:** 11 by 118 inches

**MAXIMUM SCANNING WIDTH:** 10.1 inches

**RECORDING PAPER LENGTH:** 164 feet

**TRANSMISSION SPEED:** 9600 bits per second

**FEATURES:** Automatic paper cutter, 30-page automatic document feeder, delayed transmission, 100-entry phone-number and transmission-program storage, one-key dialing for 24 programs, automatic redial, halftone and halftone plus modes, contrast control

**DIMENSIONS:** 16.4 by 12.9 by 4.7 inches

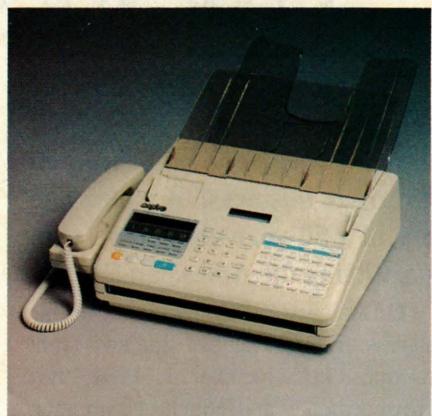
**WARRANTY:** Determined by dealer (Sanyo offers 90 days to dealers)

If you need a fax to transmit plans, artwork, or other visuals up to 11 inches wide, the Sanfax 520 may be just what you're looking for. Those with more standard fax needs, however, may find this pricey machine to be technological overkill.

This fax is packed with most of the features you'd expect from a top-of-the-line model, including 16-level gray-scale capability, a 30-page document feeder, delayed transmission of multiple faxes, a large (164-foot) paper roll, an automatic paper cutter, activity reports, and a tray for incoming faxes.

The Sanfax 520 makes dialing easy: You can store "programs" for up to 100 fax destinations including name, fax number, mode of transmission, and voice number. One-key autodialing is available for 24 of these. If the fax machine you are trying to reach is busy, Sanfax 520 will automatically redial the number for up to three minutes, so you needn't stand around pushing the Start button.

For sending photographs and artwork, the Sanfax 520 offers not just one gray-scale mode but two: halftone (8 gray levels, designed for art only) and halftone plus (16 gray levels, to help distinguish text from



Need to fax ledgers, artwork? This may be just the machine you've been looking for.

art). The halftone mode gave me excellent results with both glossy photographs and color magazine pages that mixed photographs and type. For fine-tuning transmitted images, three levels of resolution and two levels of contrast are available—at the press of a button. The Sanfax 520 can also send over-width images to standard fax machines, automatically reducing them to fit the receiving machine's regular 8.5-inch-wide paper.

The Sanfax 520 includes lots of other advanced features. One of these helps in sending overseas faxes by satellite. Another is a password security system (designed in part to eliminate junk faxes). But don't go trying to figure out how to do these things from the manual. The manual, which has no index, is written in a dialect of English created by Japanese engineers, and explanations, especially of the advanced features, are scanty.

Luckily, it's possible to get along pretty well without the manual. Most of the machine's basic features are easy enough to figure out on your own—I managed to set up the fax and program the basics in half an hour. As for the more advanced functions, the Sanfax 520 is mostly sold and supported by well-trained dealers, and installation is included in the price. The dealer will even help you enter your destination fax numbers in memory, according to Sanyo.

If you want to use a single phone line for both fax and voice calls, this machine—as is—is not for you. The unit does include a voice/fax switch but it doesn't work with an answering machine. You'd need a dedicated fax line or a separate voice/fax switch (\$200 to \$500 additional).

—JIRI WEISS

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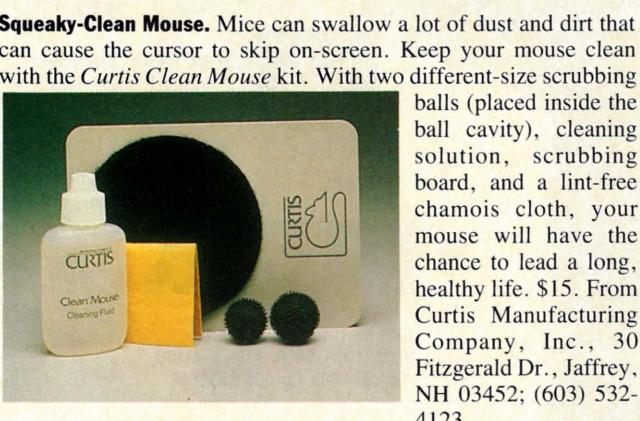
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**Save Space and Add Style.** *SLOTS*, an organizing system for 3.5-inch disks, comprises sturdy individual containers that interlock to make a colorful, compact storage unit. Single *SLOTS* can also be used as reusable protective mailers. Available in black, gray, white, and pastels. \$13 for a 10-pack, which includes one cover, two end caps, labels, and adhesive strips. From Slot Systems Inc., 1807 S. Washington, Suite 444, Naperville, IL 60565; (800) 827-5687.



**Squeaky-Clean Mouse.** Mice can swallow a lot of dust and dirt that can cause the cursor to skip on-screen. Keep your mouse clean with the *Curtis Clean Mouse* kit. With two different-size scrubbing balls (placed inside the ball cavity), cleaning solution, scrubbing board, and a lint-free chamois cloth, your mouse will have the chance to lead a long, healthy life. \$15. From Curtis Manufacturing Company, Inc., 30 Fitzgerald Dr., Jaffrey, NH 03452; (603) 532-4123.

**This Keypad Won't Cramp Your Style.** The numeric keypad on laptops and portables is usually embedded into the rest of the keyboard, making number-crunching or any type of data entry a nuisance.

**Keypad II**, a 32-key, external numeric keypad with separate cursor, Page Up/Down, Home, End, Insert, and Delete keys, helps solve this frustrating problem. Great for lefties, too. Keypad works with all laptops, portables, and desktop computers with a parallel port. (Other versions are available to connect to keyboard port or serial port.) \$140. From GenoVation Technologies, Inc., 1415 E. Edinger Ave., Santa Ana, CA 92705; (714) 285-0304.

**Dedicated Fax Center.** Give yourself more elbowroom—move the fax machine off your desk and onto its own stand. Acco's 4-FAX Modular Furniture has shelves for holding paper and compartments for storing frequently used supplies. Mix and match seven modular pieces to create your own fax center. Components priced from \$69 to \$279. From Acco International Inc., 770 S. Acco Plaza, Wheeling, IL 60090-6070; (708) 541-9500.



**Labels for Your Laser.** Whether you send out mass mailings or occasional business letters, it's easy to print professional-looking labels with your laser printer using 3M's *Laser Labels and Software Kit*. Package includes 50 sheets of 3M Laser/Copier Labels (in five sizes) and *Laser Ready Labels* software (for IBM compatibles). Supports HP LaserJet Plus/Series II/DeskJet/DeskJet Plus, Epson FX-80, and IBM Proprietary. \$70. From 3M Commercial Office Supply Division, 3M Center Bldg., 223-3S-03, St. Paul, MN 55144; (612) 733-1110.

# BEST-SELLING SOFTWARE

These best-seller lists, prepared exclusively for HOME-OFFICE COMPUTING by Egghead Discount Software, are based on June sales at 191 Egghead stores in the United States and Canada.



I  
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## BUSINESS

1. Windows v3.0  
*Microsoft Corp.*
2. WordPerfect v5.1  
*WordPerfect Corp.*
3. PC Works v2.0  
*Microsoft Corp.*
4. Tool Book  
*Asymetrix*
5. Lotus 1-2-3 v2.2  
*Lotus Development Corp.*
6. Grammatik IV  
*Reference Software*
7. Office in a Box  
*Software Publishing*
8. PC Excel v2.10  
*Microsoft Corp.*
9. Corel Draw v1.2 for Windows  
*Corel Software*
10. First Publisher v3.0  
*Software Publishing*

## HOME/SMALL BUSINESS

1. Quicken v3.0  
*Intuit, Inc.*
2. The New Print Shop  
*Broderbund Software*
3. Small Business Product Pak  
*MySoftware Company*
4. Calendar Creator Plus  
*Power Up! Software*
5. Resume Kit  
*Spinnaker*
6. Resume Maker  
*Individual*
7. Softype  
*Mediagenic*
8. PC Globe v3.0  
*PC Globe, Inc.*
9. Managing Your Money v6.0  
*MECA*
10. Family Tree Maker  
*Banner Blue*

## UTILITIES

1. PC Tools Deluxe v6.0  
*Central Point Software*
2. Menuworks  
*PC Dynamic*
3. QEMM 386 v5.0 with Manifest  
*Quarterdeck*
4. Norton Utilities Advanced v4.0  
*Peter Norton Computing*
5. Pro Com Plus  
*Data Storm*
6. First Apps v1.0  
*HDC*
7. Windows Express v3.0  
*HDC*
8. LAP Link Rel III  
*Traveling Software*
9. Direct Access 5.0  
*Delta Technologies*
10. Spinrite II v1  
*Gibson Research*

## ENTERTAINMENT

1. Flight Simulator v4.0  
*Microsoft Corp.*
2. Teenage Mutant Ninja Turtles  
*Konami*
3. SimCity  
*Maxis Software/Broderbund*
4. Ultima IV  
*Origin Systems*
5. Railroad Tycoon  
*Microprose*
6. Tetris  
*Spectrum HoloByte*
7. Casino Gambling  
*Intracorp*
8. Wolf Pack  
*Broderbund*
9. Leisure Suit Larry III  
*Sierra On-Line*
10. Populous  
*Electronic Arts*

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## BUSINESS

1. MyAdvancedMailList  
*MySoftware Company*
2. Grammatik Mac  
*Reference Software*
3. MacWrite II  
*Claris Corp.*
4. Works v2.0  
*Microsoft Corp.*
5. Excel v2.2  
*Microsoft Corp.*
6. Word v4.0  
*Microsoft Corp.*
7. Deltagraph v1.5  
*Deltapoint*
8. Simply Accounting v1.03  
*Bedford*
9. PageMaker v4.0  
*Aldus*
10. Persuasion v2.0  
*Aldus*

## HOME/SMALL BUSINESS

1. Quicken v1.5  
*Intuit, Inc.*
2. The Print Shop  
*Broderbund Software*
3. Resume Kit  
*Spinnaker*
4. MyAdvancedLabelMaker  
*MySoftware Company*
5. Calendar Creator v1.0  
*Power Up! Software*
6. Address Book Plus  
*Power Up! Software*
7. Synchronicity v1.0  
*Visionary Software/Macamerica*
8. Dinner at Eight  
*Rubicon*
9. Will Maker v3.0  
*Nolo Press*
10. Managing Your Money v3.0  
*MECA*

## UTILITIES

1. SAM v2.0  
*Symantec Corp.*
2. Pyro v4.0  
*Fifth Generation*
3. Type Reunion  
*Adobe Systems*
4. Type Manager v1.2  
*Adobe Systems*
5. After Dark v1.1  
*Berkeley Software*
6. Sum II  
*Symantec Corp.*
7. Suitcase II v1.2  
*Fifth Generation*
8. Super Laser Spool v2.02  
*Super Mac*
9. Adobe Type Set #1  
*Adobe Systems*
10. Mac Print v1.2  
*Insight*

## ENTERTAINMENT

1. SimCity  
*Maxis Software/Broderbund*
2. Falcon v2.2  
*Spectrum HoloByte*
3. Flight Simulator v1.02  
*Microsoft*
4. The Duel: Test Drive II  
*Accolade*
5. Chess Master 2100  
*Software Toolworks*
6. Life & Death  
*Software Toolworks*
7. Shanghai  
*Mediagenic*
8. Welltris  
*Spectrum HoloByte*
9. Tetris  
*Spectrum HoloByte*
10. Gauntlet  
*Mindscape*

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## BUSINESS & UTILITIES

1. Copy II+ v9.0  
*Central Point Software*
2. AppleWorks v3.0  
*Claris Corp.*
3. WordPerfect v2.1  
*WordPerfect Corp.*
4. AppleWorks GS v1.1  
*Claris Corp.*
5. GEOS v2.1  
*Berkeley Software*
6. WordPerfect v1.1  
*WordPerfect Corp.*
7. Timeout: Quicksell  
*Beagle Brothers*
8. Timeout: ReportWriter  
*Beagle Brothers*
9. Graph-It!  
*Timeworks, Inc.*
10. Timeout: GS Font Editor  
*Beagle Brothers*

## HOME/SMALL BUSINESS

1. The Print Shop w/ Graphics Library  
*Broderbund Software*
2. Quicken  
*Intuit, Inc.*
3. Bank Street Writer Plus  
*Broderbund Software*
4. Print Shop Graphics Library  
*Broderbund Software*
5. MyMailList  
*MySoftware Company*
6. Publish-It! 3  
*Timeworks*
7. Calendar Crafter  
*MECC*
8. The Print Shop Companion  
*Broderbund Software*
9. MyLabelMaker  
*MySoftware Company*
10. Deluxe Write/Deluxe Paint  
*Electronic Arts*

## EDUCATION

1. Where in Time Is Carmen Sandiego?  
*Broderbund Software*
2. Mavis Beacon Teaches Typing  
*The Software Toolworks/EA*
3. Math Blaster Plus  
*Davidson & Associates*
4. Children's Writing & Publishing Center  
*The Learning Company*
5. Where in the World . . .  
*Broderbund Software*
6. Think Quick!  
*The Learning Company*
7. Where in the USA . . .  
*Broderbund Software*
8. The Oregon Trail  
*MECC*
9. Sesame Street Numbers  
*Merit Software*
10. Writer Rabbit  
*The Learning Company*

## ENTERTAINMENT

1. Tetris  
*Spectrum HoloByte*
2. The Last Ninja  
*Mediagenic*
3. Clue  
*Virgin Mastertronic*
4. Hardball  
*Accolade*
5. Playroom  
*Broderbund*
6. Bubble Bobble  
*Taito Software*
7. The Duel: Test Drive II  
*Accolade*
8. Hunt For Red October  
*Datasoft*
9. Qix  
*Taito Software*
10. Task Force  
*Britannica*

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# Three Word Processors Well Worth Exploring

## Plus: High-Class Windows Illustration Software

### Low-Cost, "Low-Fat" Writing Tool

#### PC-Write Lite

Rating: ★ ★ ★

**AT A GLANCE:** Gratifyingly fast and reliable. Inexpensive, easy to learn and use, excellent spelling checker, modest memory and disk-space requirements, good customer support. Lacks mail-merge, sophisticated formatting, automatic indexing and table of contents.

**DOCUMENTATION:** Wire-bound manual generally good, but some features not adequately explained or illustrated.

**ERROR HANDLING:** Seems well protected against disaster.

**EASE OF USE:** Extremely easy to learn and use; good on-line reference arranged by topic, always accessible.

**SUPPORT:** First-rate, but you pay for call; newsletter a bonus.

**VERSION REVIEWED:** 1.01

**PRICE:** \$79

**SYSTEM REQUIREMENTS:** 256K IBM compatible (384K with spelling checker); two drives; CGA, EGA, VGA, Hercules, or MDA; DOS 2.0 or higher; 5.25- or 3.5-inch

**PUBLISHER:** Quicksoft, 219 First Ave. N., #224, Seattle, WA 98109; (206) 282-0452, (800) 888-8088

Many of us don't need a monster word processor that takes half a lifetime to learn to use effectively, even if we need numerous features.

Quicksoft realized this after its venerable *PC-Write* had grown into a leviathan with capabilities approaching those offered by *WordPerfect*, *Word*, and others of that class. The result is *PC-Write Lite*. With all the basic text-handling facilities as well as several useful embellishments, but none of the more exotic formatting needed for desktop-publishing-quality printouts, the program focuses on editing text more than on designing documents. For me, this focus is exactly right.

Like most word processors, *Lite* provides for keystroke commands or menu selections. The more you use the program, the more you're likely to use the keystrokes.

Thus, to reformat a paragraph, you need only press F7, instead of calling up the menu and moving the highlight bar to the desired function. A number of the operations require multiple keystrokes. For example, to preview a page of text prior to printing, you press Alt-F7 followed by F3. Several of the function keys yield different

ers, doubled words. To be honest, if I had to make the choice, I'd rather have this feature than an actual spelling checker. You can add as many new entries to the 50,000-word dictionary as you like.

Although I was disappointed in the program's failure to keep me continually informed of the word count—as is the case with my usual word processor—I like how I can get a byte, character, letter, word, and average-letters-per-word count whenever I wish. Unfortunately, as soon as I start to type again, all those useful numbers vanish.

What may deter you from *PC-Write Lite* is its lack of mail-merge, proportional fonts, automatic indexing and table of contents, and multicolumn printing. What I find attractive is its small size, speed of operation, and ease. I do a fair amount of work with *Ventura Publisher*, which allows direct text entry but is not a great text editor. I find it much easier to create large documents with a plain-folks word processor like *Lite*, which produces the requisite ASCII files that I import into *Ventura* for fancy formatting. In this two-step process, the word pro-



*PC-Write Lite's* formatting commands—such as margins, headers and footers, and line spacing—are chosen from menus.

results depending on whether they are used alone or with the Shift, Alt, or Ctrl keys, a key-definition method common to most word processors.

In fact, *Lite's* overall behavior reminds me a great deal of *WordPerfect*. There are lots of key combinations and, except when you call up a menu, nothing but a single status line at the top of the screen. The rest of the screen is for you.

To a certain extent, the normal screen arrangement of your text will match the printout. But if you want a better idea of what a printed page will look like, *Lite's* page preview feature does a passable, if crude, job. The text is greeked (that is, suggested by graphic blocks), white on a black background.

*PC-Write Lite* comes with a built-in spelling checker, but no thesaurus (however, the publisher says that version 1.1, available by the end of the year, will include a thesaurus). In addition to high-speed scanning for misspelled words, the checker gives you a guess function when it hits a word it does not recognize. I found that while the guess list for common words always included the correct word, it included a large number of others far afield. The speller can be set to catch misspellings on the fly and will—oh, happiness!—pick up that bane of keyboard-

## About Software Reviews

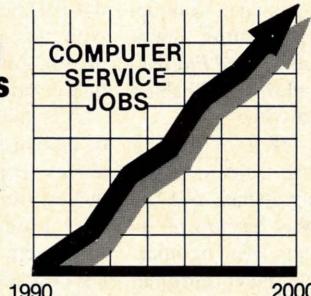
Our software reviews use shorthand to describe several of the details associated with any package. *Hardware*, *software*, and *memory* are required unless noted as "recommended" or "optional." When more than one computer is listed under "System Requirements," the machine marked with an asterisk (\*) is the type on which the software was reviewed. Requirements are not listed where obvious (for instance, printers with word processors or modems with communications programs). For computer systems that can use both 5.25- and 3.5-inch disks (such as the IBM PC and PS/2), we've listed only those disk sizes that are either supplied with the software or available at no extra cost from the publisher.

Designation	Models
IBM PC, PS/2	PC/XT/AT, PS/2 and compatibles
512K Macintosh	512K/512Ke/Plus/SE/II series
512Ke Macintosh	512Ke/Plus/SE/II series
IMB Macintosh	Plus/SE/II series
○	Poor
★	Fair
★★★	Very Good
★★★	Excellent
Good	

# 5 sure steps to a fast start as a high-paid computer service technician

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Jobs for computer service technicians will almost double in the next 10 years, according to the latest Department of Labor projections. For you, that means unlimited opportunities for advancement, a new career, or even a computer service business of your own.



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studying diagrams, schematics, and photos that make the subject even clearer. Then you do. You build, examine, remove, test, repair, replace. You discover for yourself the feel of the real thing, the confidence gained only with experience.

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If you really want to get ahead in computer service, you have to get inside a state-of-the-art computer system. That's why NRI includes the powerful new West Coast 1010 ES computer as the centerpiece of your hands-on training.

As you build this fully IBM AT-compatible micro from the keyboard up, performing key tests and demonstrations at each stage of assembly, you actually see for yourself how every section of your computer works.

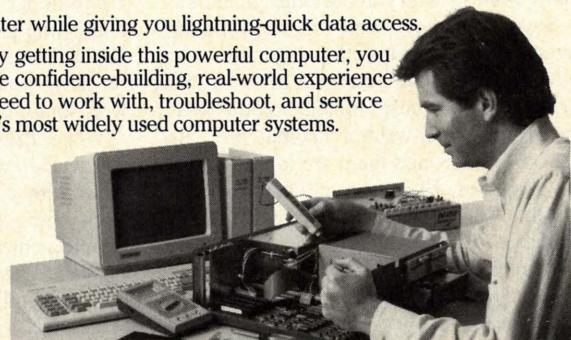
You assemble and test your computer's 101-key "intelligent" keyboard, install the power supply and 1.2 meg 5 1/4" floppy disk drive, then interface the high-resolution monitor. But that's not all.

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one, giving you as much time and personal attention as you need.

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cessor lets me keyboard as fast as fingers can go, unimpeded by concerns about how the text will appear in its final printed form. For me, at least, this is a rational approach to document creation. When I'm writing, I don't want to worry about other matters.

Several features can be customized—screen colors, various editing defaults, even a reminder to save your text after so many keystrokes. The customizing explanations in the overall well-written manual are, alas, generally poor, and there are too few practical examples. However, an anonymous call to Quicksoft resulted in courteous, helpful guidance. Telephone help is available (on your nickel) from 7:00 a.m. to 5:00 p.m. (Pacific time) but only to registered users. (Because Quicksoft's products are sold as shareware, it's possible to have a legal but unregistered copy.) The company also publishes a user-interactive newsletter, *Quick Notes*, packed with information on how to wring the most out of its various products.

At its registered price, *PC-Write Lite* is among the least expensive word processors around. And for the home office with basic word-processing needs, it will serve you well. Should you eventually find that it's not doing all you require, you can move up at a moderate cost to the parent program, *PC-Write*, which is a full-service text handler.

—HENRY F. BEECHHOLD

## Well-Mixed Writing And Desktop Publishing

### Better Working Word Publisher

Rating: ★ ★ ★ ★

**AT A GLANCE:** Great for producing clear, accurate writing, printed in a professional-looking manner. Excellent for all levels.

**DOCUMENTATION:** Very good, but wish addendum was integrated in manual for better indexing.

**ERROR HANDLING:** One of the most solid programs I've worked with.

**EASE OF USE:** Obvious to use; help index always at hand.

**SUPPORT:** Knowledgeable, free support.

**VERSION REVIEWED:** 5.0

**PRICE:** \$60

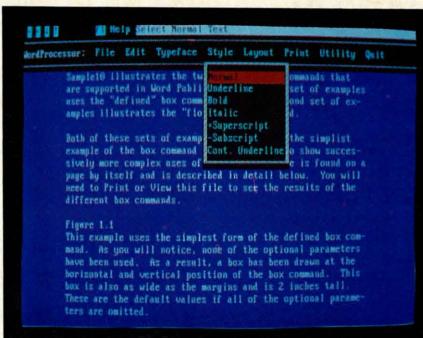
**SYSTEM REQUIREMENTS:** 512K IBM compatible; two drives; CGA, EGA, VGA, or Hercules; mouse optional (required for draw mode); DOS 2.1 or higher; 5.25- or 3.5-inch

**PUBLISHER:** Spinnaker Software, 201 Broadway, Cambridge, MA 02139; (617) 494-1200

*Better Working Word Publisher* 5.0, the latest update of an already powerful word processor, is characteristic of the direction IBM-compatible word processors are heading these days. You can rattle off text, as

usual, in *Word Publisher*'s word-processing mode, or you can shift over to WYSIWYG mode to do drawing and page-layout work. Having the combination in one program eliminates the time spent switching between a traditional word processor and a desktop-publishing program. Add a thesaurus, spelling checker, and outliner, and *Word Publisher* turns your computer into a publishing workstation to be reckoned with.

*Word Publisher* starts off as a typical text-based word-processing screen, complete with a ruler showing inches and tab stops and a three-line status display of remaining memory, current line number, typeface, insert mode, and other information. In addition, prompts remind you to press Esc for pull-down menus (à la the Macintosh or *Windows*) or F1 for help. If you prefer, you can make selections by pointing at your choice with a mouse, then clicking. When you point and click at the Esc prompt, for example, a bar of pull-down menus appears across the top. These menus—File, Edit, Typeface, Style, Layout, Print, Utility, and Quit—can be accessed with a mouse or the cursor keys.



Clearly arranged pull-down menus help make Better Working Word Publisher an instantly accessible program.

As with other programs I've seen that offer both text-based and graphic modes, working in *Word Publisher*'s text mode is faster. That's because it takes longer to refresh a bit-mapped graphic screen than a text screen, which often results in a short delay between typing a character and seeing it appear. That's why I use text mode unless I'm drawing or placing art, or if I need to see the actual shape and size of the font I'm using. When working in text mode, all type looks the same; the only way to know which typeface is active is by glancing at the typeface status readout.

*Word Publisher* lets me choose from six typefaces, as well as my resident printer fonts—a good variety for most documents. In addition, I can scale type from 9 to 60 points, complete with common style selections for accenting text, such as underline,

bold, italic, superscript, and subscript. This covers most bases for me, from attractive headlines to small print, and it takes advantage of my 24-pin dot-matrix printer's best features to produce very fine 180 by 180 dot-per-inch printouts. To ensure operation with most printers, *Word Publisher* includes drivers for more than 250 laser and dot-matrix printers.

Alongside its desktop-publishing variety of typefaces and styles, *Word Publisher* includes several outstanding features for producing well-organized and clean copy. The ones I found most useful for my writing work were the outliner, 100,000-word spelling checker, and thesaurus.

The outliner, a program within the program, supplies the Roman numerals, letters, and numbers so I can quickly organize ideas into an outline. When I'm finished, I export all or part of my completed outline to the word processor. As I used the outliner on several writing jobs (including this one), I found it tremendously helpful for pulling together the topic and subtopic sentences that form the skeleton of my writing. Once this was done, it was simply a matter of "filling in the blanks" with the support sentences that make up the body of the text.

*Word Publisher*'s good spelling checker—unlike the one in *WordPerfect* 5.1, my usual word processor—displays each word in an on-screen window as it's checked, clearly showing where it is in the document. Although it's one of the quickest spelling checkers I've used, I would be happier if it could also check only one word, or a block of words, at a time.

Because of its simplicity, *Word Publisher*'s thesaurus is one of the slickest. Just put the cursor on a word and select Thesaurus from a menu. If the word is in the thesaurus, several synonyms will pop up on-screen. Unlike other, more complicated thesauri, *Word Publisher*'s lets me select a replacement word by highlighting my choice and pressing Enter. If I press F3, *Word Publisher* will suggest other words. I found that I could consistently find and select an appropriate word in seconds.

Pull-down menus make for rapid-fire editing and page formatting. If I want to set up a two-column page with specific margins, for instance, all I do is select the Layout menu and make my preferred changes in the Tabs/Margins and Columns submenus. When I finish setting up a page format, I save it to use later.

To see exactly how a document will look when printed out, I move from text to graphics mode. It takes a few seconds to switch to a black-on-white screen that simulates a piece of paper. In this mode, I can draw horizontal and vertical lines, make boxes, and import graphics in industry stan-

andard TIF (scanned) and PCX (PC Paintbrush) formats. I can edit, resize, duplicate, or eliminate any existing graphic image. This made it easy for me to create an attractive newspaper ad for my computer-consulting business that included a box filled with text and a nifty picture I scanned with a handheld scanner—all sized exactly to the newspaper's standards. Unlike other programs I tried to do this with, it took me less than an hour to produce camera-ready results.

*Word Publisher* comes with a 127-page, wire-bound user's guide, as well as a 20-page addendum with information on the graphics mode. I liked the manual because it has a clear description of all features and a thorough index for quickly finding information. My only criticism is that the publisher should incorporate the addendum into the existing manual so that the important graphics-mode information is also indexed.

Spinnaker offers an unlimited, free support line. When I called the non-800 number, I was greeted by a friendly person who knowledgeably explained why my printer printed funny characters at the beginning of some documents. "Double-check to make sure you picked the correct printer driver," I was told. Sure enough, upon changing printer drivers, the problem went away.

*Better Working Word Publisher* includes all the software ingredients necessary to produce clear and accurate writing, printed out in many different typefaces, and infused with high-resolution graphic images. Since *Word Publisher* evolved from a word processor into a true desktop-publishing competitor, it has a solid foundation that many writers will appreciate, combined with layout flexibility that graphic artists will also enjoy. It is a solid contender.

—JOEY LATIMER

## Full-Featured Mac Writing Tool, with Unique Extras

**Nisus**

Rating: ★ ★ ★

**AT A GLANCE:** Does about everything you expect from full-featured word processor and more. Fast, with extensive search-and-replace and macros, multiple clipboards and undos, integrated drawing. Not enough keyboard shortcuts.

**DOCUMENTATION:** Covers just about everything, but manual and tutorial for using search-and-replace and creating macros insufficient, especially for novices. On-line help gives brief explanations of menu commands.

**ERROR HANDLING:** Handles most steps in usual Mac fashion to prevent serious mistakes that would lose data.

**EASE OF USE:** Only average. Most features easy enough, but some advanced ones, like search-and-replace, come with effort.

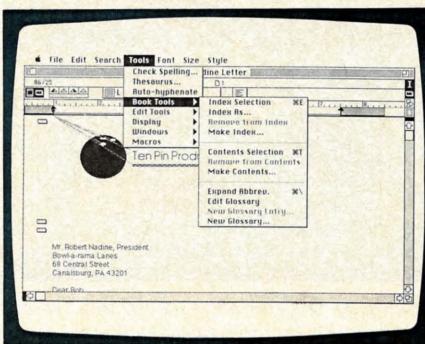
**SUPPORT:** Toll-free number a big plus—particularly helpful to delve into program's advanced features.

**VERSION REVIEWED:** 2.11

**PRICE:** \$395

**SYSTEM REQUIREMENTS:** 1MB Macintosh (2MB under MultiFinder); two drives (hard-disk drive recommended); System 4.1 or higher

**PUBLISHER:** Paragon Concepts, Inc., 990 Highland Dr., Suite 312, Solana Beach, CA 92075; (619) 481-1477



The nested menus in Nisus give you full control over its copious selection of commands without visual clutter.

In 1984, when the Macintosh was new, *MacWrite* was the only word processor—and it was pretty limited. Today, the good word processors range from the greatly enhanced *MacWrite II* to the feature-rich Microsoft *Word*. You may already have settled on the right one for you. I routinely use three different programs: one (*MacWrite II*) for routine work and the other two (*Word* and *WordPerfect*) for special projects requiring tables, sorting, multiple columns, and so on. Now comes *Nisus*, with yet another array of special features.

First, *Nisus* seems familiar and yet different. Getting started on simple projects like letters comes quickly; the handy stationery template makes the task especially easy. Rulers in *Nisus* show the margins and tabs (like other programs), but they also show which line the cursor is on. *Nisus* offers more control over formatting than most other programs. For example, I can set line and paragraph spacing in single point increments and can keep specified lines of text together on the same page.

Second, *Nisus* has 10 clipboards that store information for fast access. This may be text or graphics that I've cut or copied or text that I use repeatedly. *Nisus* also supplies a glossary that lets me enter standard text and graphics using an abbreviated command. Unique among Macintosh word processors, *Nisus* has multiple undo and redo commands—up to 32,000 times. That should be

enough for even the most indecisive writer.

Third, *Nisus* is fast. It keeps up with fast typists and scrolls through documents in a flash, too.

Graphics rulers allow a variety of drawing tools to be used. Finished graphics can stand alone or they can have text wrapped around them. I can even place graphics within text. For many routine tasks, *Nisus* easily stands in for a page-layout program. To help that along, I can style type with a box around a word or line or add a lower underline than usual, beneath even the lower descenders of the text.

However, while *Nisus* lets me create multiple columns, unlike *Word* or *WordPerfect*, columns can't be mixed with blocks of text that are the full width of my document. In *Nisus*, the entire document must be columns or nothing.

The *Nisus* search-and-replace function is the most varied of any Mac word processor's because of Global Regular Expression Parser (GREP). For example, a text search can be narrowed to a specific type style, font name, and point size; a search-and-replace can be done throughout multiple files, even if they're not open; and if-then statements can branch a search. In fact, GREP is primarily a programmer's tool, but *Nisus* makes it simpler to use with its built-in Easy-GREP. In spite of this, I'm not sure how many people will try to navigate the full potential of Easy-GREP. Indeed, delving into Easy-GREP will have you thinking more like a programmer than a writer. However, if you need to modify files extensively, such as files downloaded from an on-line computer service or imported MS-DOS files, GREP is uniquely valuable.

Combined with the extensive search-and-replace options, *Nisus* macros will do a wide variety of tasks based on its extensive search language. To get you going quickly, the publisher includes many prepared macros ready for use. Several would be particularly helpful in creating books and other complex documents that require indexes, footnotes, and tables of contents. Creating your own macros, however, is less direct than using a macro program like *QuicKeys*.

I like the spelling checker almost as much as *MacWrite II*'s, my favorite. It's fairly fast and automatically suggests possible correct words. The thesaurus also works well, although I slightly prefer the one in *WordPerfect* for the Mac.

In general, once I learn a program, I prefer keyboard alternate commands rather than the more Maclike menu commands I get at with the mouse. *Nisus* comes with quite a few keyboard alternates; and even better, as with *Word*, I can assign my own set of keyboard alternates to just about any menu command.

As a basic word processor, *Nisus* is easy to use. But advanced features like Easy-GREP and creating macros aren't as intuitive and could puzzle some users. And while the manual that comes with *Nisus* is substantial, the macro and Easy-GREP sections will take some study for most people. One highly positive, offsetting factor is the publisher's toll-free telephone number for technical support. My calls were answered accurately and quickly.

Who might want to use *Nisus* rather than one of the other major contenders like *Word* or *WordPerfect*? Anyone preparing books for publication, for example, or other complex documents will find the indexing and index-merging capabilities some of the best around. *Nisus* will find each occurrence of a particular word or phrase, automatically eliminate duplicates on each page, then generate a separate index file that can be readily formatted into various index styles. I've done it using other word processors, and it's generally not as easy. Anything that might make indexing easier is worth considering. In fact, *Nisus* is worth an in-depth look for the number and richness of its features you'll find nowhere else. —ROGER HART

## Everything You Need In a PC Illustration Program

**Micrografx Designer**

Rating: ★ ★ ★ ★



Micrografx Designer offers an extensive set of drawing tools for professional-looking illustrations.

**AT A GLANCE:** Excellent set of drawing features, highly useful for desktop publishing and technical illustrations.

**DOCUMENTATION:** Gets you off to fast start and provides thorough information on all features.

**ERROR HANDLING:** Lets you recover from mistakes; error messages complete and understandable. Backs up files automatically.

**EASE OF USE:** Easy enough, but some may feel overwhelmed by expanse of features.

**SUPPORT:** Unlimited phone support (you pay for call) and support forum on CompuServe. Extended support \$150/year (includes up to two annual major upgrades, training materials, and quarterly newsletter). Support people knowledgeable.

**VERSION REVIEWED:** 3.01

**PRICE:** \$695

**SYSTEM REQUIREMENTS:** 640K IBM compatible (80286 microprocessor or better running at 16MHz or faster recommended); hard-disk drive; EGA, VGA; mouse recommended; DOS 3.0 or higher and Windows 3.0; 5.25- and 3.5-inch

**PUBLISHER:** Micrografx Corp., 1303 Arapaho, Richardson, TX 75081; (214) 234-1769

When I bought my first PC drawing program in 1985, there was not much to select from. I didn't need a complex computer-aided-design program to create building blueprints or a detailed schematic of the

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space shuttle. I just wanted a program that was easy to use and could produce technical illustrations for a book I was writing. Micrografx's *In\*Vision* filled most of my needs.

*In\*Vision* is now *Micrografx Designer*, a drawing program that artfully blends technical-illustration and graphic-art drawing tools. *Designer* 3.01 runs under Microsoft Windows, the graphic-based operating environment that's perfect for illustration software.

Today, many excellent PC drawing programs line dealers' shelves. *Designer*'s main competitors are three other high-quality drawing programs—*Corel Draw!*, *Arts and Letters*, and *GEM Artline*. Here's why *Designer* is my choice.

*Designer* and its competition all make it much easier for me to create quality drawings, even though I'm not a professional artist. When I start a drawing project, I always check out my clip art to see what I might include. The clip-art files that come with *Designer*, with more than 1,700 symbols, give me a head start on creativity.

After assembling the clip art, I start to create the rest of the drawing elements (symbols) that I need. If the project is a

technical illustration, for example, that requires only rectangles, straight lines, and a limited number of curves, I draw the symbols from scratch. *Designer*'s rulers, status line, and grid help me to position the drawing symbols as I create them. The status line also tells me the size of symbols.

If my project is a free-form graphic illustration that includes a lot of curved lines, I create the symbols by taking a paper drawing and using a scanner to produce a paint file of the image (either in *PC Paintbrush*'s PCX format or in Tagged Image Format [TIF]). I import the paint file into *Designer* to use as a template for my drawing. At that point, I can trace over the image to create symbols or use the automatic trace feature.

Then I use the reshape feature to adjust what I draw and make my creation picture perfect. Reshape lets me move any point that defines the symbol's shape and adjust the slope of curves, so I can make my drawing conform to the paint-image template. Reshape also lets me add and delete control points, cut lines, join lines, and convert a line to a curve or a curve to a line.

In fact, *Designer* delivers more drawing tools than any of its competitors—tools for

rectangles, squares, curves, joined lines, horizontal/vertical lines, circles, ellipses, Bezier curves, freehand Bezier curves, rounded rectangles, and others. I can even configure which tools and commands I want in the *Designer* toolbox, along the left side of the drawing window. That way, I can access frequently used tools without going through menus.

*Designer*'s drawing power has been greatly improved with the addition of a Bezier curve drawing tool. Until version 3.0, only *Illustrator* and *Artline* offered a Bezier curve tool. *Designer*'s Bezier curve tool, great for doing precise drawing, is much easier to use than the other programs' approaches. The program also introduces new line-style features. I can now select line-end styles and join styles—mitered, beveled, square, and round corners along with square and round line-end caps. This lets me produce more accurate drawings, especially for high-resolution output devices.

*Designer* adds support for color scanned images in the TIF 5.0 and PCX formats. Color images can be included in a drawing and output to color-printing devices or separated for reproduction on color presses. *De-*

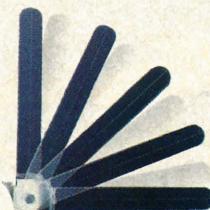
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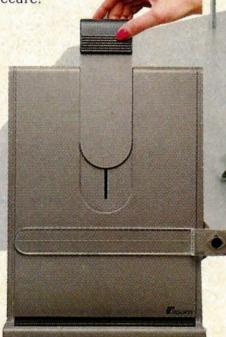


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signer's automatic bit-map trace will recognize color scanned images and produce drawing symbols with a matching color. *Designer* is the only drawing program on the PC that has a color bit-map trace feature.

A vector fill option—new for PC drawing programs but common for high-end Mac drawing programs—lets me create fabriclike prints and repetitive patterns. I can fill any symbol automatically with another symbol, and control the size and placement of symbols within the pattern. I found vector fill helpful for creating the background for the cover of a company report I am writing. I used the company logo as the fill pattern for the background.

Text handling is *Designer*'s biggest improvement. Version 3.01 includes 34 Bit-stream and seven URW fonts. The new text editor includes word wrap, paragraph indents, and selectable line spacing. *Designer* can also vary the font, color, and size of selected text within a text block. *Designer*'s outline fonts can be converted to Bezier curve symbols. I use this feature to create company logos and produce special effects with type. *Designer* does not automatically align text to a curve as *Corel Draw!* and

*Arts and Letters* do, but I can manually rotate and align text to a curve after I have converted the text to a Bezier curve. Although more work, it's an equivalent effect.

*Designer* gives me 64 drawing layers to use for organizing my drawings. I can name, lock, and selectively display the layers in a drawing. Layers, an important feature in *Designer*, are absent from the other drawing programs. I find layers helpful for organizing symbols into manageable groups, so I avoid being overwhelmed by the detail of a complex drawing.

*Designer* includes a slide-show utility that I've used to create and organize a computer-based presentation using images created with *Designer* and other Micrografx products. PCX and TIF file formats are also supported. I can select from many different fade and wipe effects and control slide timing with automatic or manual slide advance.

The documentation's format and design helped me learn *Designer* and answered questions about how complex features work. The page design includes a generous amount of white space—plenty of room to jot down notes. I found the *Designer* Quick Reference to be handy for checking how

seldom-used features work. The Tips and Tricks pamphlet offers advice on how to use *Designer* more effectively after learning the basics. *Designer* also includes an on-line Help system.

Unlimited telephone support for *Designer* is free. Extended technical support costs \$150 per year and includes up to two major upgrades, a set of training materials, and a quarterly newsletter. However, Micrografx does not provide an 800-number for either basic or extended technical support. After leaving a telephone message for tech support, my call was returned within a few hours. All the support people were courteous and knowledgeable. *Designer* now has a support forum on CompuServe as well.

The improvements in *Designer* make it the leader in PC drawing programs. While it's basically easy to learn and use, some of you may feel overwhelmed by its extensive features. By taking the time, however, you'll be rewarded by being able to create professional-quality drawings, even if you're not a professional artist. *Designer* is an excellent choice for both novices and experts who want to produce stunning graphic images. —ARTHUR V. ENGLISH

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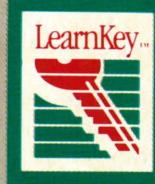
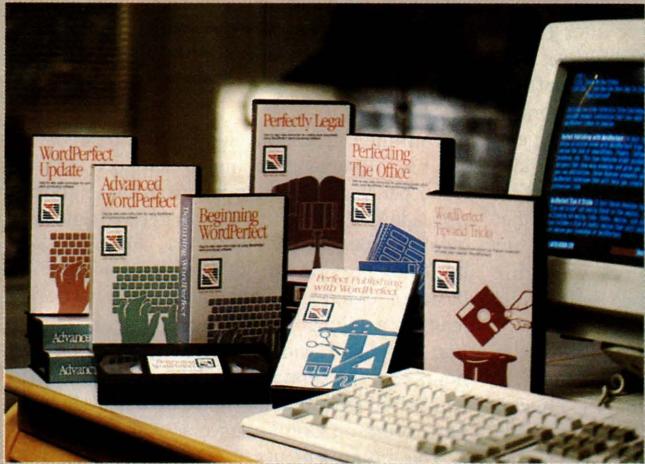
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### LINE RATES

(Effective July 1989 issue)

Prepayment Required

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3 Times	27.00
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(Effective July 1989 issue)

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Add \$50 for Reader Service number for all display ads under 3 column inches.

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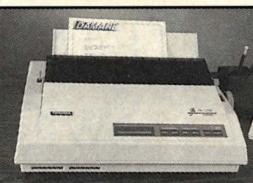
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# The Mommy-and-Daddy Track

BY NICK SULLIVAN



I sometimes go blank when friends ask me what I've been doing. Have I climbed a Himalayan peak? Gone white-water rafting? Birdied any golf holes? Reeled in a striped bass? I finally say, "Work and children—that's taking up all my time."

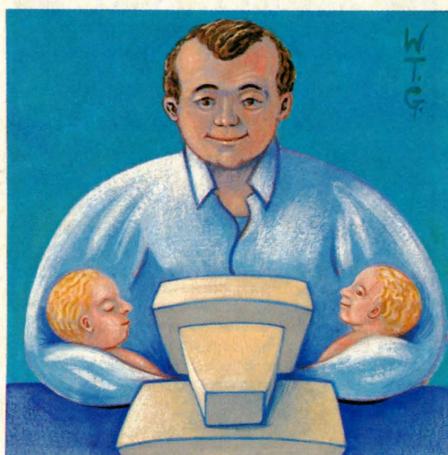
I'm embarrassed that I can't better account for my time, until I read the newspapers. Then I realize that a lot of people are in the same boat, if not a leakier one.

My wife and I both work from home. Although we each take periodic business trips, we don't have to deal with daily commutes. Thus, we don't have to worry about making special arrangements for our children in the morning or about being home by a certain time at the end of the day. We do some running around for school activities, babysitters, and playmates—but we have it better than two-income families where one or both parents work outside the home.

Second, there are two of us. About one-quarter of all American families are now headed by a single parent, more often than not the mother. This parent has to support the family and raise the children alone. That means taking a job with some flexibility, which often limits job choices and income.

Last year there was a big flap about the so-called mommy-track article in the *Harvard Business Review*, which implied that some women were more career-oriented while others were more family-oriented—and that a potential employer should identify the type before hiring a woman. While some women are obviously more career-oriented than others (and the same is true for men), can you necessarily tell by the choice they've made about working and mothering? Maybe they had no choice! Or maybe they decided to spend a few years with their children—who are not young for long—and return to the limelight later.

Am I on the daddy track because I choose



## Am I on the daddy track because I choose to work at home while my children are young?

to work at home while my children are young? Or am I a better worker because I'm not building up resentment at my employer for putting me in an untenable bind?

I don't have a straight answer. I don't think there *is* a straight answer. I sometimes think that I'm coping out by not wearing a suit and sweating it out on subways and catching chills in air-conditioned offices. Then I remember that my ambition is not defined in corporate terms and that I'd rather excel in other ways. And I remind myself that I wanted my children to grow up in the country rather than the city. Since there are fewer jobs in the country, I have to work from home to hold a city job.

My thoughts about the trials of today's workers came as Congress debated and finally passed the Family and Medical Leave Act—which President Bush then vetoed, saying he didn't want to interfere with business. The bill would have given workers in companies with more than 50 employees up to 10 weeks of unpaid leave to deal with a birth or emergency family illness.

The federal government and most businesses that supported the veto act as if the dominant family type in the country is still the classic nuclear family of the 1950s, in

which the father worked and the mother cared for children and sometimes aging parents. In fact, with two-income and single-parent families as the majority, most people are forced to make difficult choices about how to work and raise families.

Yesterday, a friend said to me, "I guess you're in the same upper-middle-class bind the rest of us are in." What? If this is upper middle class, the standard of living in this country is going down faster than a Trident submarine. His point, though somewhat crudely made, was that only the truly rich have real choices about how they will work and raise families. Otherwise, you must work for one of those rare companies with flexible rules or work from home. And I think that's what Congress was trying to tell the president.

I feel fortunate to work for a company (Scholastic Inc., the publisher of *HOME-OFFICE COMPUTING*) that already offers more flexibility than Congress is trying to mandate for all businesses. When each of my two children was born I got three weeks of paid leave. I could have taken an additional six months of unpaid leave, had I shown a compelling reason to do so. (Mothers, of course, get much better deals.) And while the company has no formal policy that allows people to work from home, more and more employees do so on an informal basis.

Working from home, of course, is not a substitute for child care, except in a pinch. I'm sure almost everyone who works from home will agree. But since working from home eliminates commuting, you may have an extra two hours a day to shuttle children. And, while you still spend the majority of your energetic hours dealing with work and children, you at least have some time to relax and attend to other chores or hobbies. You don't have to be a Super Mom or Super Dad to get through an ordinary day.

Am I on the daddy track because I choose to work at home while my children are young? Is my wife on the mommy track? I suppose it depends on how you look at it. We still get dressed and go to work. Maybe, since we're doing it together, we're on the mommy-and-daddy track. But it doesn't mean we've given up on our careers. It just means we're taking advantage of technology to spend less time on careers—and we're devoting the extra time to our children. ■

**NICK SULLIVAN** is a senior editor who telecommutes to HOME-OFFICE COMPUTING's New York office from his home in Massachusetts. He can be reached on MCI Mail (ID: NSULLIVAN) or CompuServe (ID: 76703,744).

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